FM/AM STEREO RECEIVER

A-722/722L

SERVICE MANUAL

(COMPACT HIFI SYSTEM
UD COMPONENT SYSTEM UD-90)

KENWOOD

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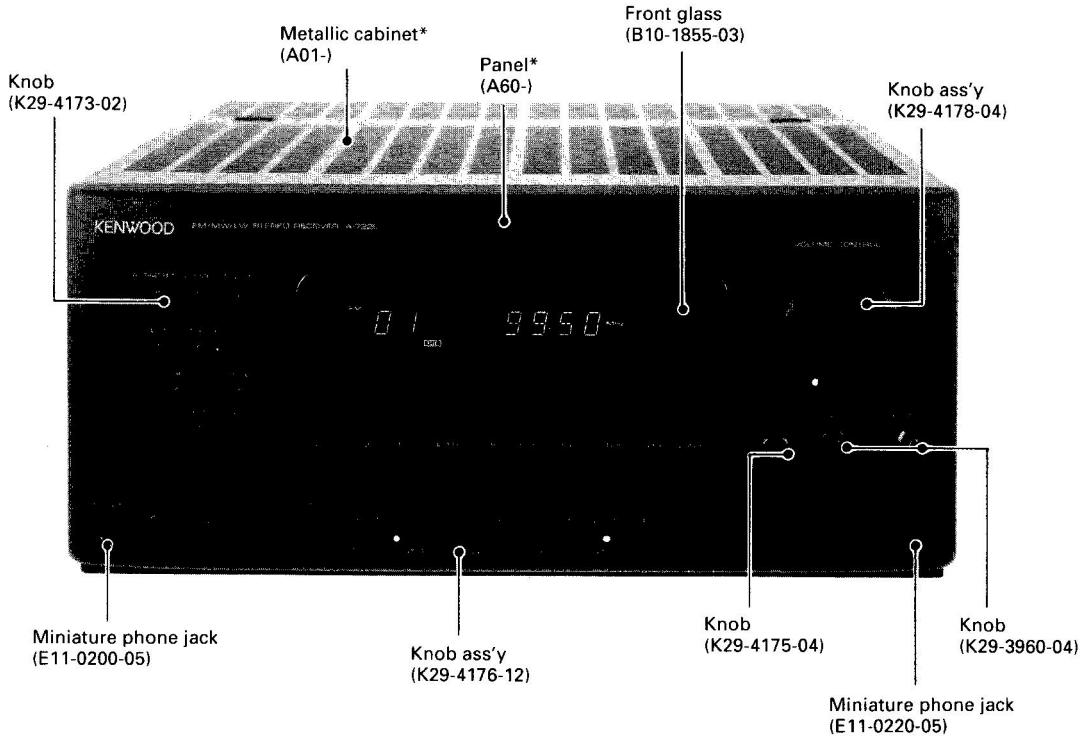

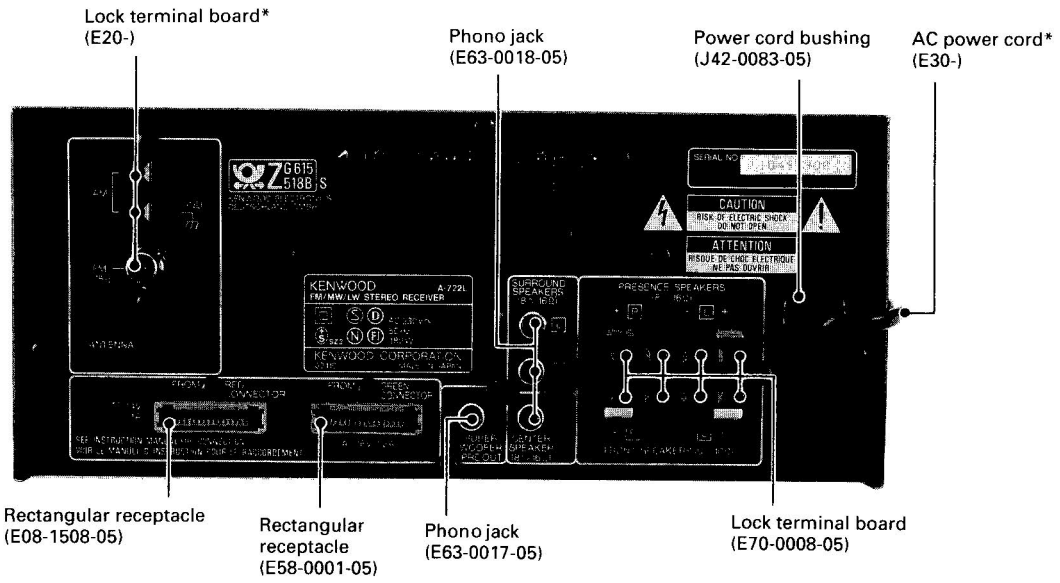

[A-722 : K, P, Y, M, X type
A-722L : T, E type]

* Refer to parts list on page 35
Photo is A-722L.

Refer to the SERVICING NOTES on page 2 before repair.

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SERVICING NOTES

① This unit does not contain a selector IC. Since each speaker relay of this unit is operated according to the data that is serially transmitted from the graphic equalizer (GE-722), the receiver cannot output sound alone. To output a signal to each speaker terminal, follow the following procedures.

Procedure 1)

Direct the tuner output to the main amplifier input. Connect the test pin on the right (lower right of the tuner board) of the main amplifier board (X09, A/8). (Fig. 1)

Front amplifier	Pins 12 and 10 (Left channel) Pins 13 and 11 (Right channel)
Presence amplifier	Pins 12 and R145 lead (Presence left channel) Pins 13 and R146 lead (Presence right channel)

Procedure 2)

Enter the test mode. (Hold down the CHARACTER key, and insert the AC plug into the outlet.)

1) Press the DAT key. (Only the front speaker outputs sound.)
2) Press the VIDEO key. (The DSP surround four-channel mode is entered, and the front, rear, and center speakers output sound.)
3) Press the DBS/LD key. (The DSP front four-channel mode is entered, and the front and presence speakers outputs sound.)

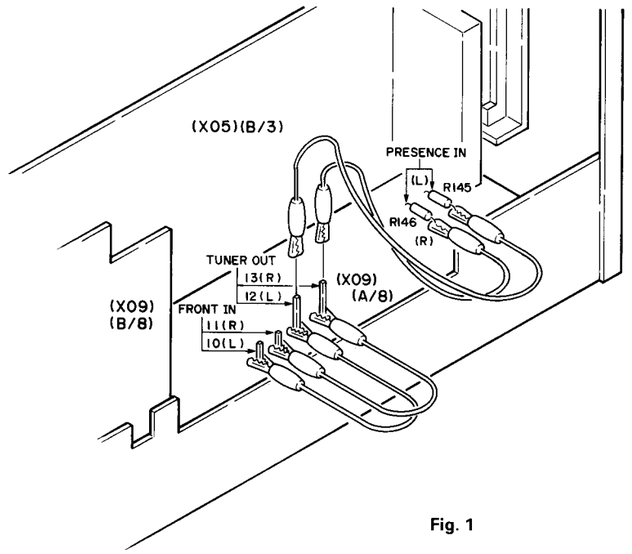
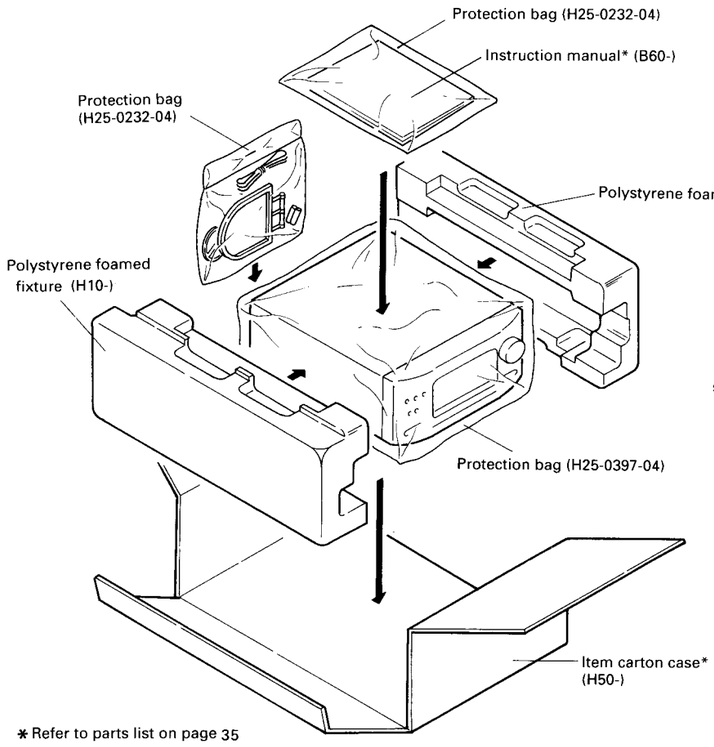


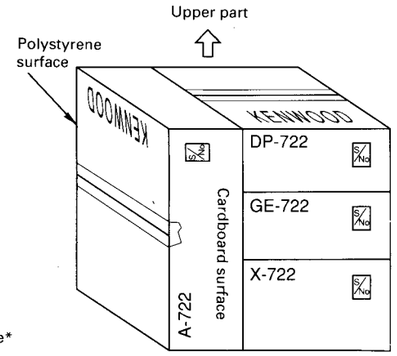
Fig. 1

PACKING

The A-722 is supplied with all the accessories, except the remote controller (A70-0535-05) for the GE-722.



* Refer to parts list on page 35

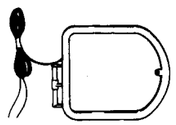


Serial number of system is on box for receiver
Arrangement of components as viewed from window in other box

The sleeve method is K, Y, M types, and E, X, T types are corrugated fiberboard boxes.

Accessories

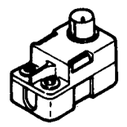
- AM (MW, LW) loop antenna 1
  (T90-0173-05): Japan made
  (T90-0174-05): Singapore made



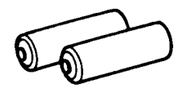
- Loop antenna stand 1
  (J19-2815-04)

- FM indoor antenna 1
  (T90-0176-05): Japan made
  (T90-0175-05): Singapore made

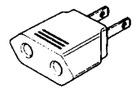
- Antenna adaptor (75 Ω/300 Ω) .. 1
  (A-722L only) (T90-0136-05)



- Batteries (R06/AA) 2

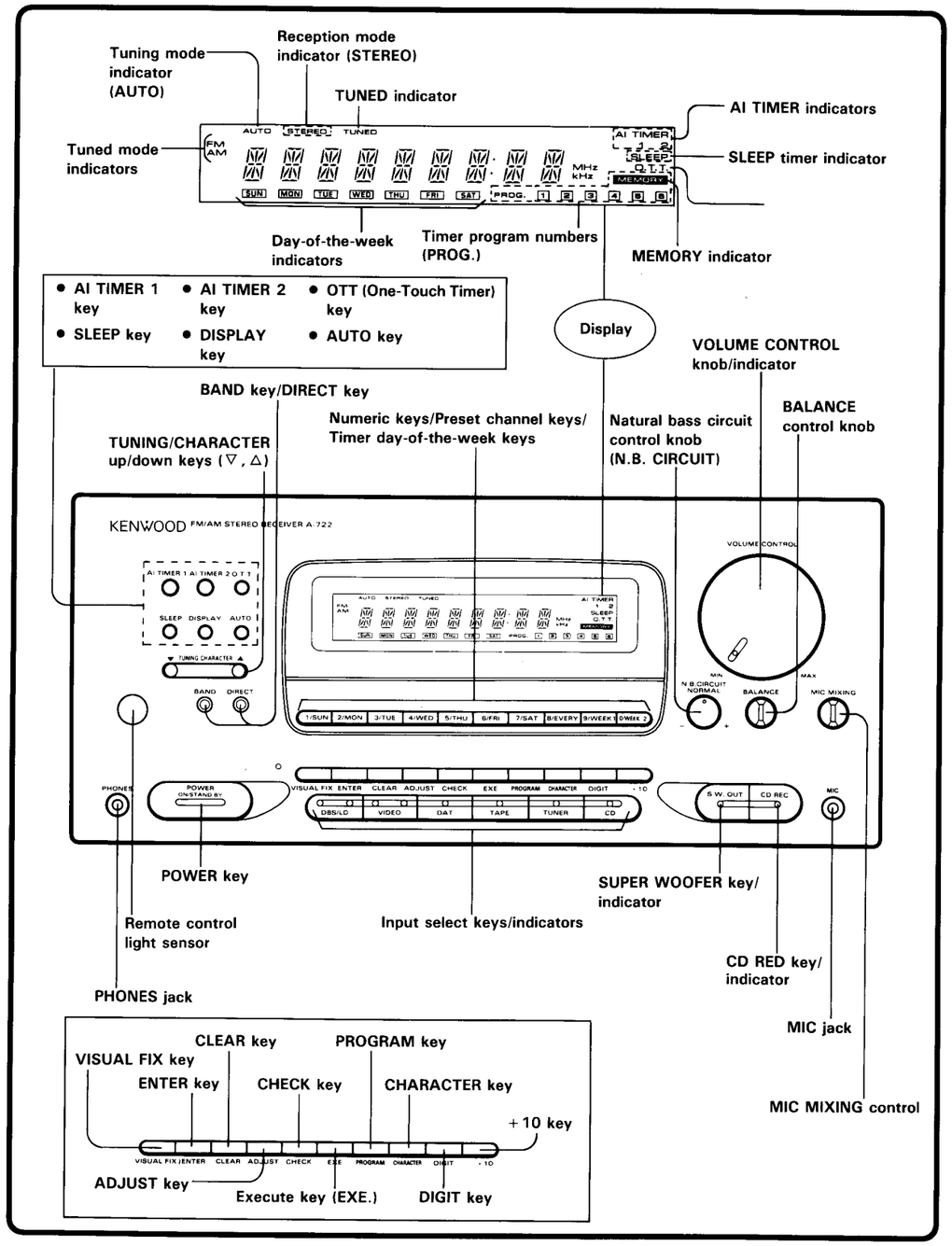


- AC plug adaptor 1
  (M type only) (E03-0115-05)



Controls and indicators

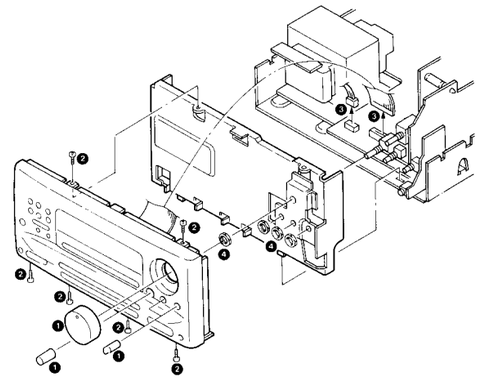
■ Receiver



DISASSEMBLY FOR REPAIR

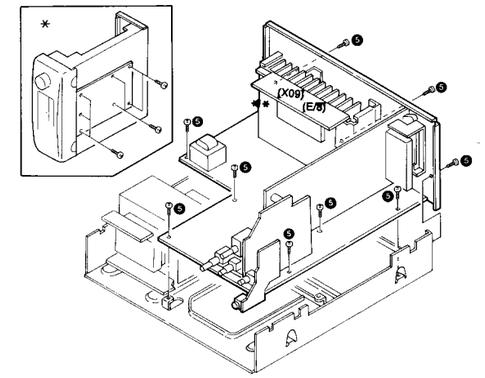
Removing the front panel and sub panel

1. Remove the four knobs ❶.
2. Remove the six screws ❷.
   Disconnect the two connector ❸, then remove the front panel.
3. Remove the four nuts ❹, then remove the sub panel.



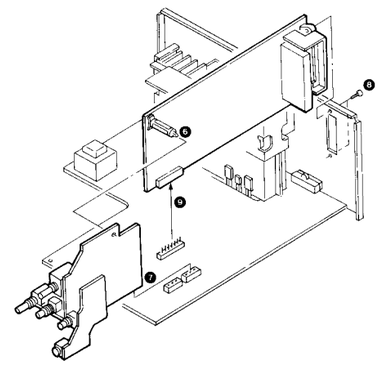
Removing the main PC board (X09: A/8)

4. Remove the nine screws ❺, then remove the main PC board (X09: A/8).
   * To adjust the main PC board, cover, as shown in the figure.
   ** To remove the final transistors for the front amplifier, remove the presence amplifier—PC board [(X09) (E/8)] first.

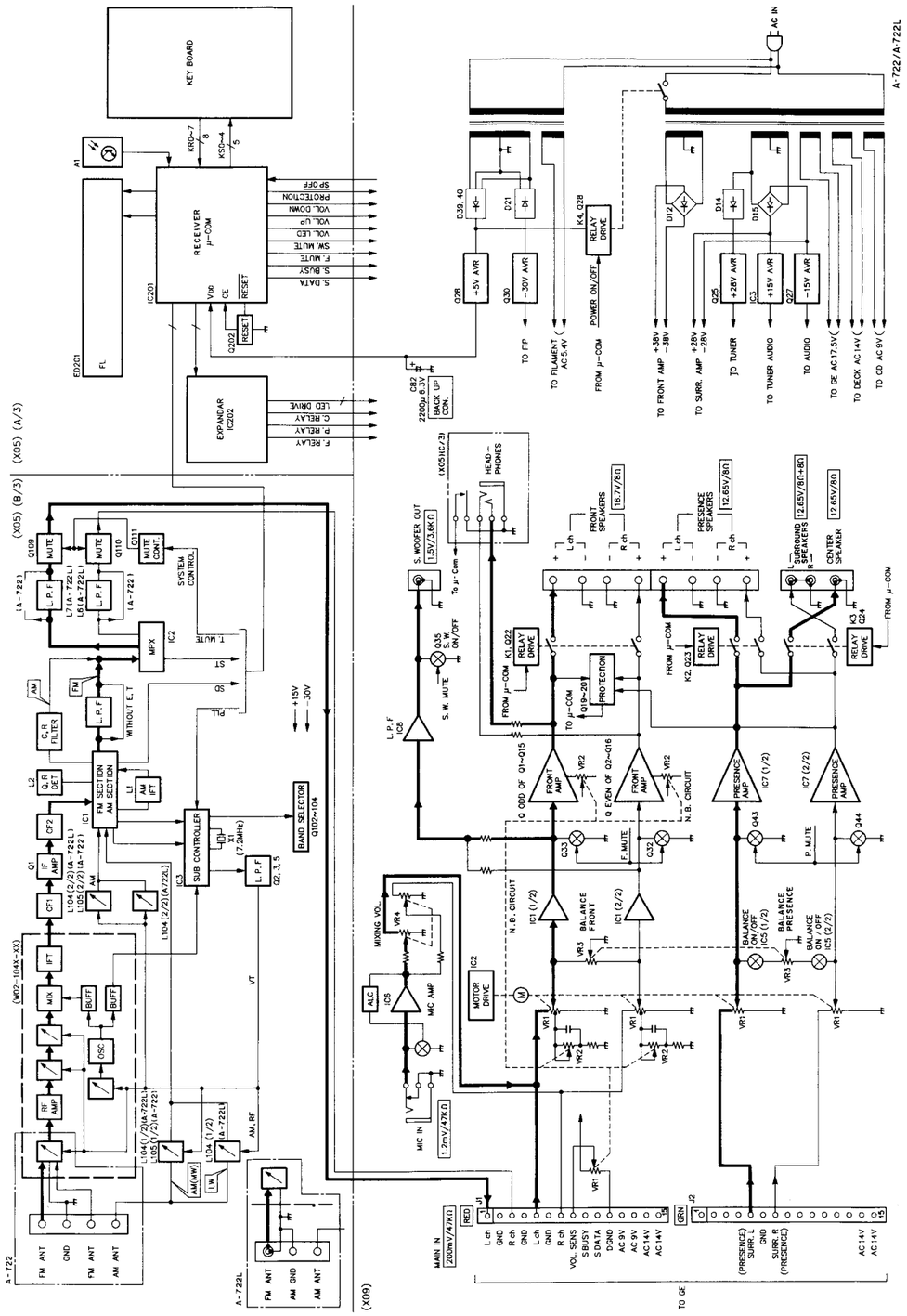


Removing the tuner PC board (X05: B/3) and the volume PC boards (X09: B/8, C, D/8)

5. Remove the unit holder ❻.
6. Disconnect the volume PC boards (X09: B/8, C/8, D/8) from connector ❼.
7. Remove the two screws ❽.
8. Disconnect the tuner PC board (X05: B/3) from connector ❾

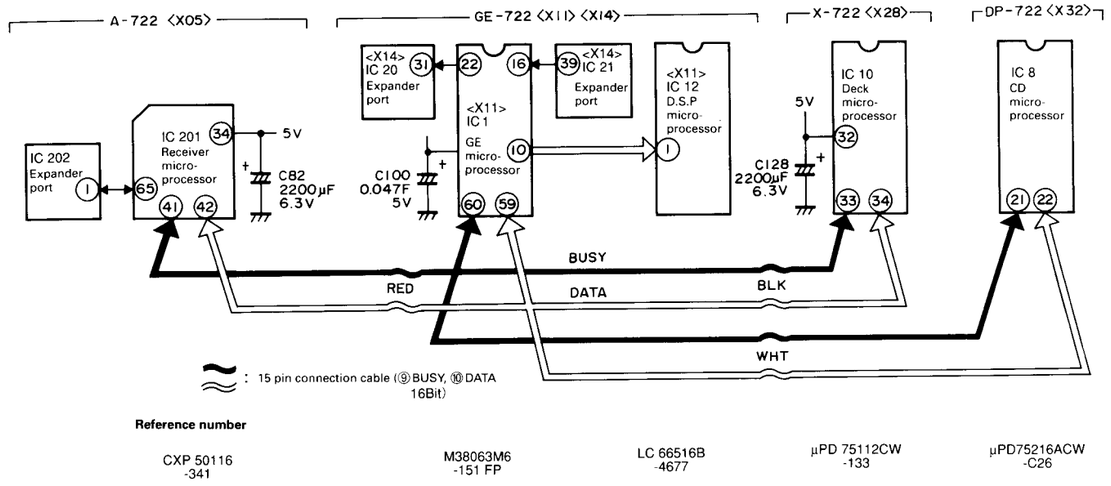


BLOCK DIAGRAM



CIRCUIT DESCRIPTION

Microprocessor and back-up condenser of this unit (16-bit serial transmission is supported unlike the UD-7/9 series (8 bits).)



Reference number

CXP 50116 -341	M38063M6 -151 FP	LC 66516B -4677	µPD 75112CW -133	µPD75216ACW -C26

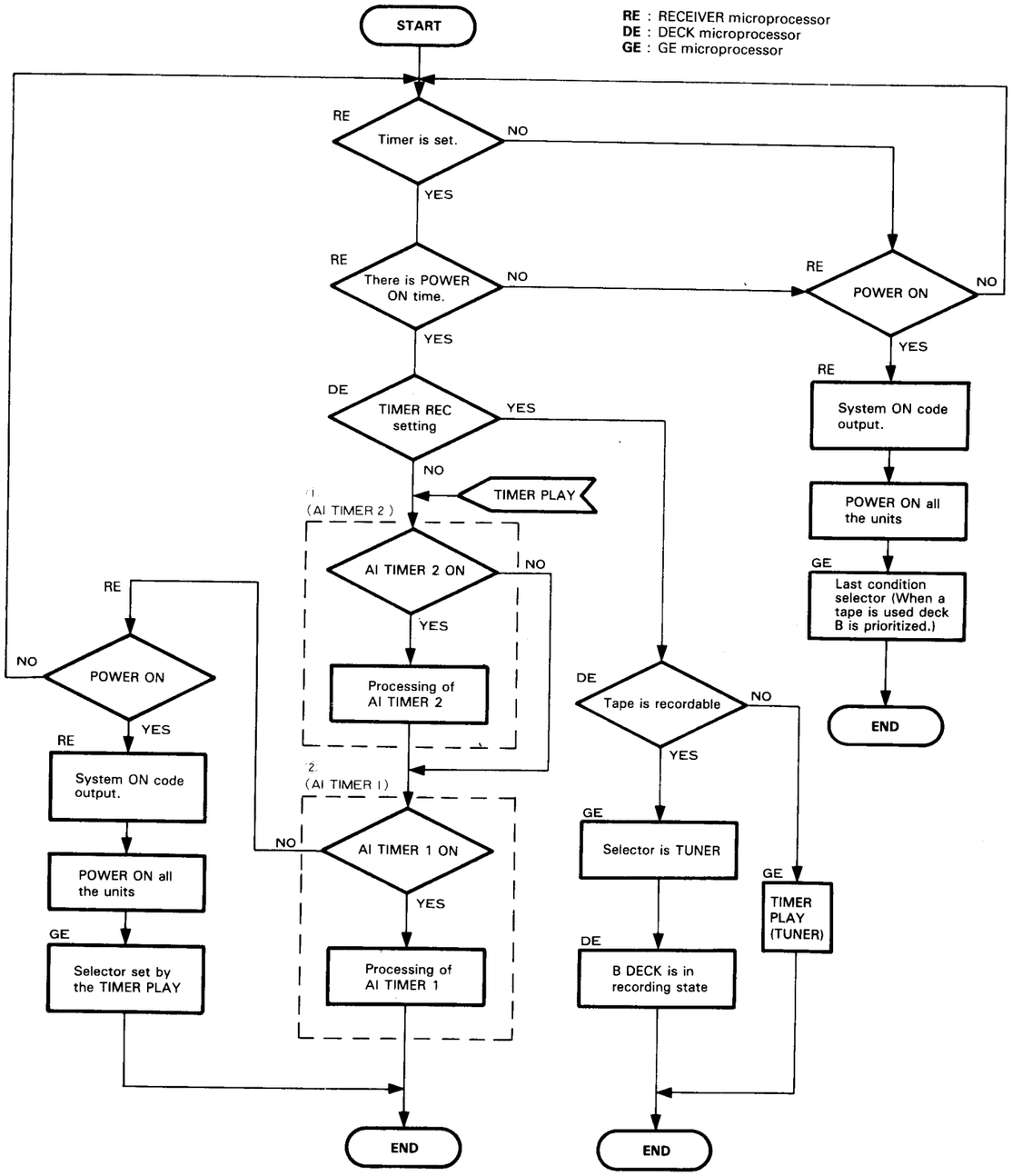
Microcomputer initialization (reset) and test mode

		A-722 RECEIVER microcomputer (X05) IC201 CXP50116-341Q	GE-722 GE microcomputer (X11) IC1 M38063M6-151FP	X-722 DECK microcomputer (X28) IC10 UPD75112CW-133	DP-722 CD microcomputer (X32) IC8 UPD75216ACW-C26
Backup condenser		(X05) C82 2200 µF 6.3 V	(X11) C100 0.047 F 5 V	(X28) C128 2200 µF 6.3 V	None
Initialization (reset)		Hold down the ENTER key, and insert the AC plug into the outlet.	Hold down the MEMORY key, and turn AC on.	Turn AC off in the CRLS test mode (see below).	Turn AC off again
Test mode	**Operation**	Hold down the CHARACTER key, and insert the AC plug into the outlet.	• Selector test: Hold down the EFFECT key, and turn AC on. • Graphic equalizer test: Hold down the FLAT key, and turn AC on. • Segment test: Hold down the R/M key, and turn AC on.	Short test pin ⑤ —▷|— ⑥, and turn AC on.	See the DP-711 service manual.
	Release	Remove the AC plug from the outlet.	Release — AC off.	Press the PAUSE key.	
	Contents	① All fluorescent displays light. For details, see the service manual for each model.		No fluorescent display.	

CIRCUIT DESCRIPTION

Operation of UD-90 system

The flow chart from power on through sound generation



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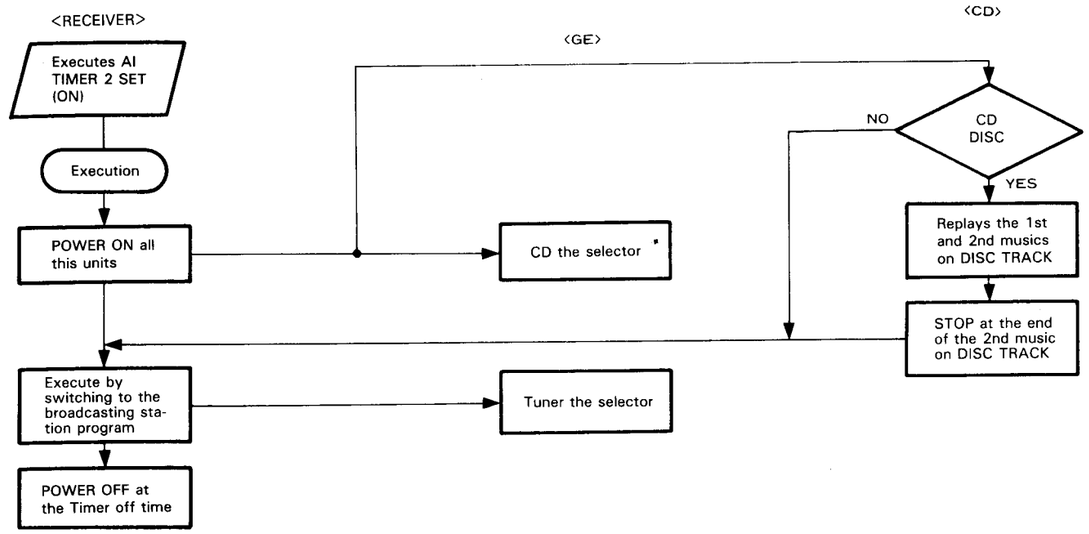
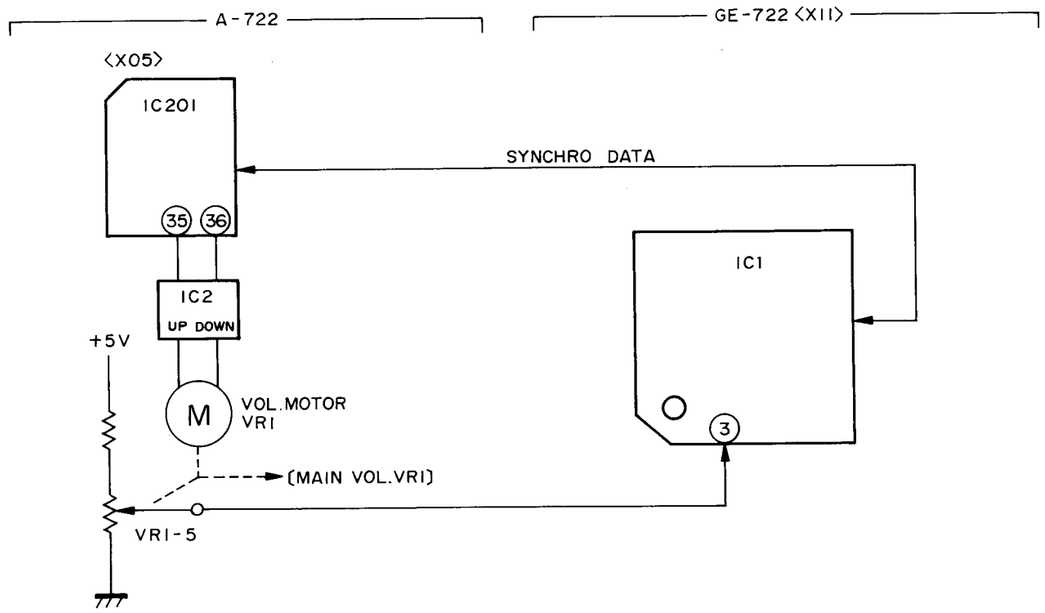
CIRCUIT DESCRIPTION

① Flow chart of AI TIMER 2

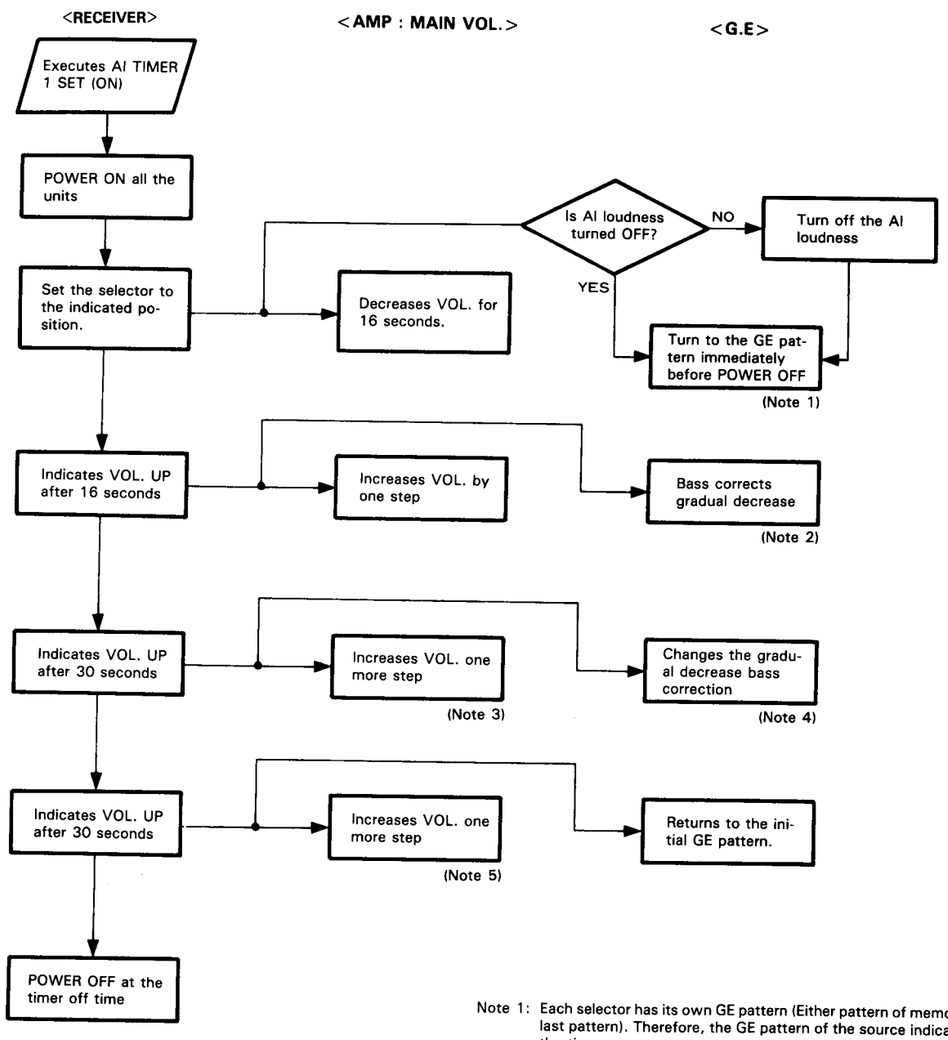

<RECEIVER>
<GE>
<CD>
Executes AI TIMER 2 SET (ON)
Execution
POWER ON all this units
CD the selector
Execute by switching to the broadcasting station program
Tuner the selector
POWER OFF at the Timer off time
CD DISC
NO
YES
Replays the 1st and 2nd musics on DISC TRACK
STOP at the end of the 2nd music on DISC TRACK

Operation of AI TIMER 2



CIRCUIT DESCRIPTION

② Indication flow of AI TIMER 1


<RECEIVER>
<AMP : MAIN VOL.>
<G.E>
Executes AI TIMER 1 SET (ON)
POWER ON all the units
Set the selector to the indicated position.
Indicates VOL. UP after 16 seconds
Indicates VOL. UP after 30 seconds
Indicates VOL. UP after 30 seconds
POWER OFF at the timer off time
Is AI loudness turned OFF?
NO
YES
Turn off the AI loudness
Decreases VOL. for 16 seconds.
Turn to the GE pattern immediately before POWER OFF
(Note 1)
Increases VOL. by one step
Bass corrects gradual decrease
(Note 2)
Increases VOL. one more step
(Note 3)
Changes the gradual decrease bass correction
(Note 4)
Increases VOL. one more step
(Note 5)
Returns to the initial GE pattern.

Note 1: Each selector has its own GE pattern (Either pattern of memory and last pattern). Therefore, the GE pattern of the source indicated by the timer appears.
Note 2: Shifts to the pattern which has the loudness effect (There are two patterns of the gradual decrease bass correction of AI TIMER 1).
Note 3: The three steps of increase volume can be selected.
Note 4: Decrease correction volume is lowered in accordance with VR UP.
Note 5: Same as Note 3. However, the VR position is limited at the position of 12.

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CIRCUIT DESCRIPTION

Function description

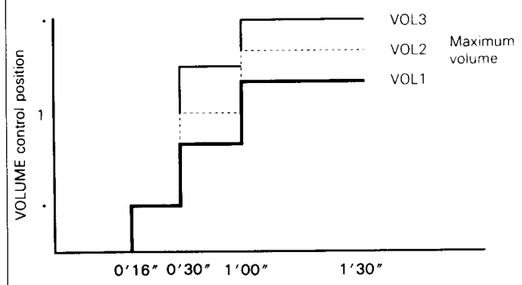
a) AI TIMER 1

- With the program timer mode set to PLAY, when the timer is turned ON, the setting contents for the AI TIMER 1 is activated if the AI TIMER 1 is set to ON (the FL indicator is lit).
- When the AI TIMER 1 is turned ON, first playback starts with the minimum volume level, then the volume level is increased in three steps.
- The third-step volume level (the maximum volume level) can be selected among the three types of the volume levels (VOL. 1-3). Each time the AI TIMER 1 key is pressed, the maximum volume level is changed in order from VOL. 1 to VOL. 3 and TIMER OFF setting cyclically.

① When the key is pressed with the AI TIMER 1 is OFF (FL indicator is not lit):
→ OFF → VOL. 1 → VOL. 2 → VOL. 3 →

② When the key is pressed in the volume setting mode (FL indicator is lit):
Example: When VOL. 2 is selected
→ VOL. 2 → VOL. 3 → OFF → VOL. 1 →

Reference for volume selection



- The VOLUME control rotates as the volume changes.
- The graphic equalizer curve also varies accordingly.

b) AI TIMER 2

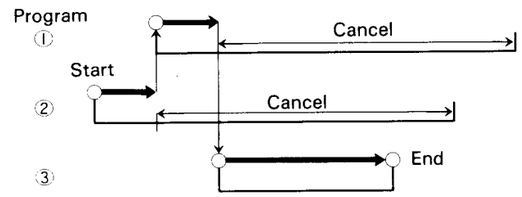
- With the program timer mode set to PLAY, when the timer is turned ON, the setting contents for the AI TIMER 2 is activated if the AI TIMER 2 is set to ON (FL indicator is lit).
- When the AI TIMER 2 is turned ON, if the disc is loaded in the CD player, the two tracks on the disc is played regardless whether the other source is set for play.
  Then, the playback source is changed to tuner automatically.
- Each time the AI TIMER 2 key is pressed, the timer setting is changed alternately.

Timer program operation

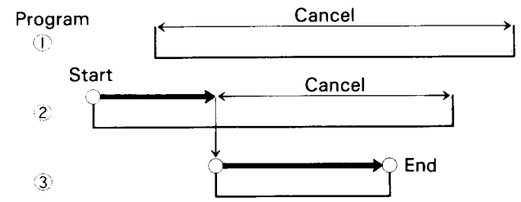
<When the program settings are registered within the same period>

- When the two or more program settings are to be started at the same time:
  The program having the least number is activated and others will be cancelled.
- When the setting time for two or more programs differ:
  First, the program with the earliest setting time is activated. Then, if the same mode (REC mode or PLAY mode) has been designated for the other program, the operation is changed to the program in which the same mode as the first one is designated and the end time for the above program will be cancelled. If another mode is set for of other programs, the contents will be cancelled.

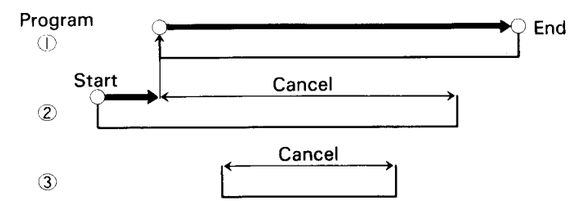
Example 1: When the operation modes for all three programs are set to PLAY:



Example 2: When the operation modes for programs ②, ③ are set to PLAY and that for the program ① is set to REC:



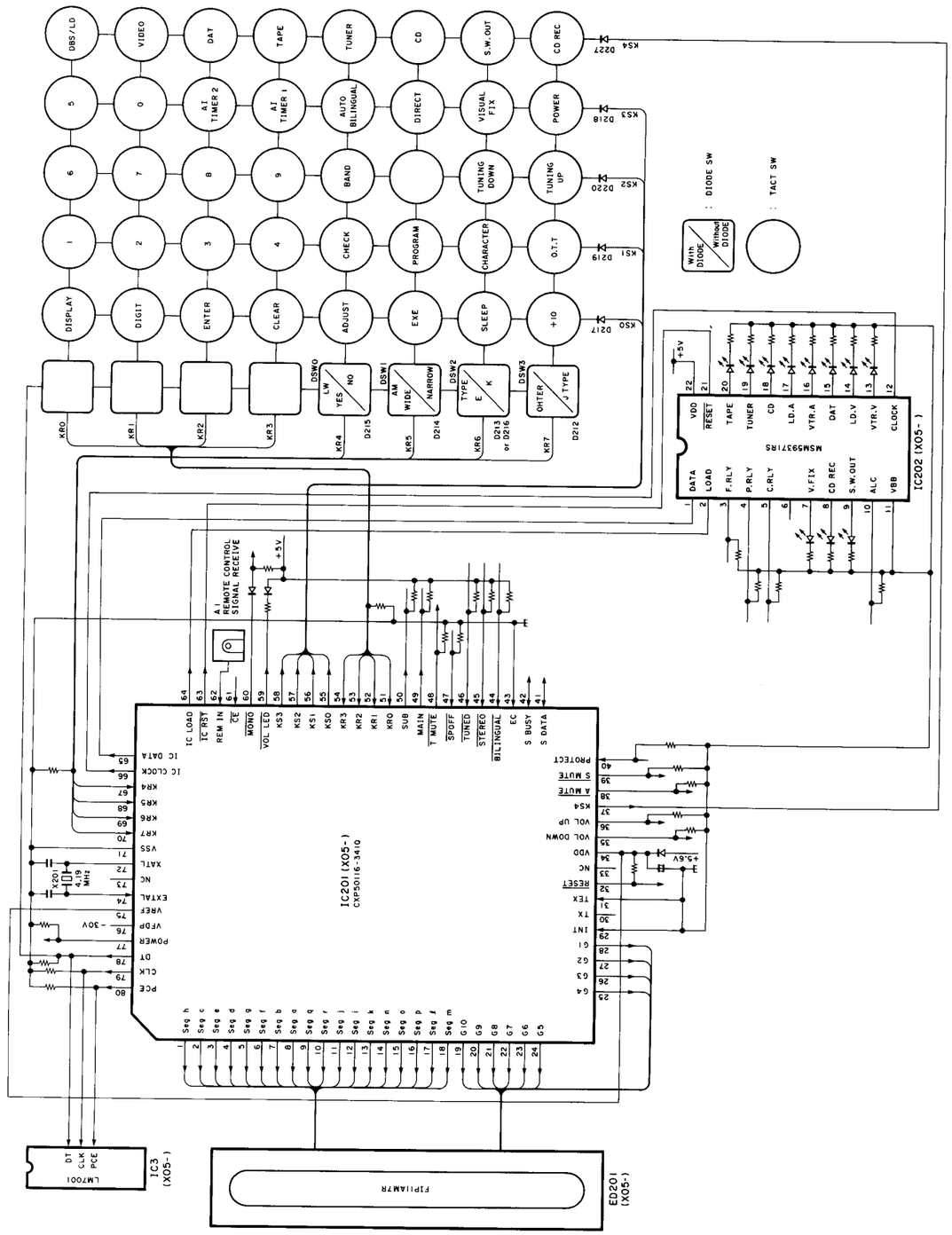
Example 3: When the operation mode for programs ①, ② are set to REC and that for program ③ is set to PLAY:



The program end is determined by the OFF time of the program which is activated at the last.

CIRCUIT DESCRIPTION

Block diagram of surrounding microprocessor



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CIRCUIT DESCRIPTION

Function initial setting

(1) Tuner section

POWER ..... OFF
BAND ..... FM
Last frequency ..... Lower most limit of each band
Last preset ..... "- -" display
Preset memory ..... Test frequency of each memory
AUTO/MONO ..... AUTO
BILINGUAL ..... BOTH MODE
Display mode ..... POWER ON ... Frequency display
POWER OFF ... Clock display

(2) Clock, calendar, and timer section

Calendar ..... January 1, 1991
Clock ..... 0:00 Power failure mode
Programmable timer ..... Day of week : TUE
ON : 0:00
OFF : 0:00
MODE : PLAY
SOURCE : TUNER
SET ch : 01 ch
Execution mode : OFF
Sleep timer ..... OFF
One touch timer ..... OFF

(3) Amplifier section

Selector ..... Audio system : TUNER
Video system : LD
V-FIX ..... OFF
CDREC ..... OFF
SUPER WOOFER ..... OFF

Setting of initial conditions (reset)

(1) Method

While pressing ENTER key, turn the AC ON.

(2) Contents

Clears all the memory and returns to the initial conditions. However, the test frequency is newly memorized in the preset memory at this time. (The same as when the back-up data is NG.

Test mode

(1) Setting method

While pressing CHARACTER key, turn the AC on.

(2) Clearing method

AC off.

(3) Contents

- All fluorescent lamps and LEDs light.
- S 4-channel mode (the front, center, and rear speakers output sound).
- Receive the minimum FM value.

The test is performed with the following keys.

1) Preset channel calling
Normally, the +10 key changes the high-order digits 1-, 2-, and 0- alternately, but it changes the high-order digits 1- and 0- alternately in the test mode. The 0 key does not call any channel, but in the test mode, if the high-order digit is 0, 10 ch is called, and if it is 1, 20 ch is called. Table 1 lists the channels to be called.

Table 1

High order \ Low order	TEN KEY									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**0**
0	1	2	3	4	5	6	7	8	9	10
1	11	12	13	14	15	16	17	18	19	20

2) Motor volume test
If the DIGIT key is pressed, the volume keeps increasing for 16 seconds, and then keeps decreasing for 16 seconds. To stop the test in the middle, switch the power off.

3) O.T.T key test (one-touch-timer)
Normally, the O.T.T key is not accepted if the clock is not functioning. Only in the test mode, it is indicated that the key is accepted, but it does not cause any operation. When the key is pressed the first time, ON 0:30 O.T.T appears on the fluorescent display, and after five seconds, only O.T.T is displayed. When the key is pressed the second time, O.T.T disappears, and the original state before the key is pressed returns.

Conditions by destination

Destination type		Destination switches (DSW) B3	B2	B1	B0	Band	Receiving frequency range	Inter-channel space	Intermediate frequency	PLL reference frequency
A-722	M, Y	1	1 or 0	0	0	FM	87.5 ~ 108.0 MHz	100 kHz /50 kHz	+10.7 MHz	50 kHz (25 kHz)
						AM	531 ~ 1602 kHz /530 ~ 1610 kHz	9 kHz /10 kHz	+450 kHz	10 kHz
	K, P	1	0	0	0	FM	87.5 ~ 108.0 MHz	100 kHz	+10.7 MHz	50 kHz (25 kHz)
						AM	530 ~ 1610 kHz	10 kHz	+450 kHz	10 kHz
	X	1	1	0	0	FM	87.5 ~ 108.0 MHz	50 kHz	+10.7 MHz	50 kHz (25 kHz)
						AM	531 ~ 1602 kHz	9 kHz	+450 kHz	9 kHz
A-722L	T, E	1	1	0	1	FM	87.5 ~ 108.0 MHz	50 kHz	+10.7 MHz	50 kHz (25 kHz)
						MW	531 ~ 1602 kHz	9 kHz	+450 kHz	9 kHz
						LM	153 ~ 281 kHz	1 kHz	+450 kHz	1 kHz

CIRCUIT DESCRIPTION

Microprocessor: CXP50116-341Q (X05: IC201)

Pin functions

Pin No.	Pin name	I/O	Name	Description
1 ~ 18	S4 ~ S21/PG0 ~ PG3 PK0 ~ PK3, PJ0 ~ PJ3 T15 ~ T10	O	Segment	Segment (h, c, e, d, g, f, b, a, q, r, j, i, k, n, o, p, l, m)
19 ~ 28	S22, S23/T9, T8, T7 ~ T0	O	G10 ~ G1	Grid 10 ~ 1
29 ~ 31	INT, TX, TEX		INT, TX, TEX	No used.
32	RST	I	$\overline{\text{RESET}}$	Reset pin — Low: RESET, High: NORMAL
33	NC		NC	No used.
34	Vdd		Vdd	+5 V power supply
35	PI0	O	VOLD	Motor volume down — Low: STOP, High: ACTIVE
36	PI1	O	VOLU	Motor volume up — Low: STOP, High: ACTIVE
37	PI2	O	KS4	Key scan signal output (KS4)
38	PI3	O	$\overline{\text{AMUTE}}$	Amplifier mute — Low: ON, High: OFF
39	PB0	O	$\overline{\text{SMUTE}}$	Super woofer mute — Low: ON, High: OFF
40	PB1	I	PROTECT	Protection detection — Low: OFF, High: ON
41	PB2	I/O	SDATA	Serial communication DATA
42	PB3	I/O	SBUSY	Serial communication BUSY
43	EC		EC	No used.
44	PX0	I	$\overline{\text{BILINGUAL}}$	TV bilingual signal detection — Low: BILINGUAL, High: NORMAL
45	PX1	I	$\overline{\text{STEREO}}$	Stereo signal detection — Low: STEREO, High: MONAURAL
46	PX2	I	$\overline{\text{TUNED}}$	SD signal detection — Low: TUNED, High: OFF
47	PA0	I	$\overline{\text{SPOFF}}$	Head phone use detection — Low: Use, High: No use
48	PA1	O	TMUTE	Tuner mute — Low: OFF, High: ON
49	PA2	O	MAIN	TV main selection signal output
50	PA3	O	SUB	TV sub selection signal output
51 ~ 54	PF0 ~ PF3	I	KR0 ~ KR3	Key return signal input (KR0 ~ KR3)
55 ~ 58	PE0 ~ PE3	O	KS0 ~ KS3	Key scan signal output (KS0 ~ KS3)
59	PY0	O	$\overline{\text{VOLLED}}$	Volume LED drive — Low: ON, High: OFF
60	PY1	O	$\overline{\text{MONO}}$	Forced monaural output — Low: ON, High: OFF
61	PY2	I	CE	Chip enable signal input — Low: OFF, High: ON
62	PY3	I	REMIN	Remote control signal input
63	PD0	O	$\overline{\text{ICRST}}$	Expansion port IC (MSM59371RS) RESET
64	PD1	O	ICLOAD	Expansion port IC (MSM59371RS) STROBE
65	PD2	O	ICDATA	Expansion port IC (MSM59371RS) DATA
66	PD3	O	ICCLOCK	Expansion port IC (MSM59371RS) CLOCK
67 ~ 70	PC0 ~ PC3	I	KR4 ~ KR7	Key return signal input (KR4 ~ KR7)
71	V_{SS}		V_{SS}	GND
72	XTAL		XTAL	Crystal oscillator input (4.19 MHz)
73	NC		NC	No used.
74	EXTAL		EXTAL	Crystal oscillator input (4.19 MHz)
75	Vref		Vref	No used.
76	Vfdp		Vfdp	–30 V power supply.
77	S0/PH0	O	POWER	Power ON/OFF signal output — Low: OFF, High: ON
78	S1/PH1	O	DT	PLL IC (LM7001) DATA
79	S2/PH2	O	CLK	PLL IC (LM7001) CLOCK
80	S3/PH3	O	PCE	PLL IC (LM7001) STROBE

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CIRCUIT DESCRIPTION

Expansion port IC: MSM59371(X05: IC202)

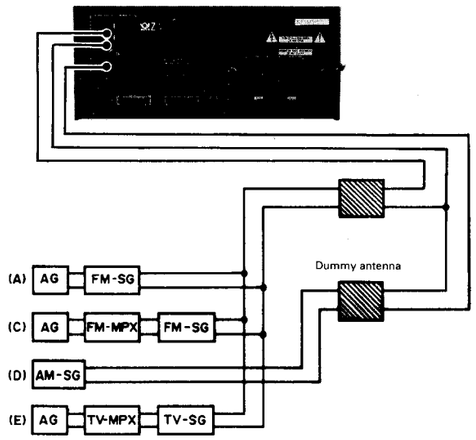
Pin functions

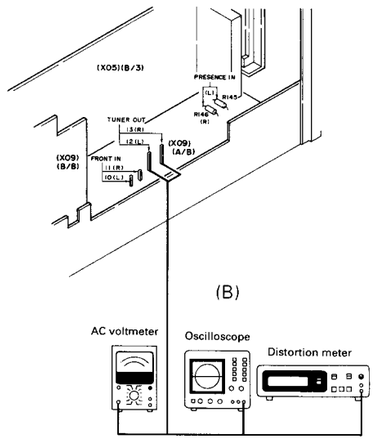
Pin No.	Pin name	I/O	Name	Description
1	DATA	I	ICDATA	DATA input
2	LOAD	I	ICLOAD	Strobe input
3	016	O	F. RLY	Front speaker relay — Low: OFF, High: ON
4	015	O	P. RLY	Presence speaker relay — Low: OFF, High: ON
5	014	O	C.RLY	Center and surround speaker relay — Low: OFF, High: ON
6	013	O		No used.
7	012	O	VFIX	V-FIX LED drive — Low: OFF, High: ON
8	011	O	CDREC	CD REC LED drive — Low: OFF, High: ON
9	010	O	S.W.OUT	SUPER WOOFER LED drive — Low: OFF, High: ON
10	09	O	ALC	ALC signal output — Low: OFF, High: ON
11	Vbb		Vbb	GND
12	CLOCK	I	ICCLOCK	Clock input
13	08	O	VTR.V	Selector VIDEO (V) LED drive — Low: OFF, High: ON
14	07	O	LD.V	Selector LD (V) LED drive — Low: OFF, High: ON
15	06	O	DAT	Selector DAT LED drive — Low: OFF, High: ON
16	05	O	VTR.A	Selector VIDEO (A) LED drive — Low: OFF, High: ON
17	04	O	LD.A	Selector LD (A) LED drive — Low: OFF, High: ON
18	03	O	CD	Selector CD LED drive — Low: OFF, High: ON
19	02	O	TUNER	Selector TUNER LED drive — Low: OFF, High: ON
20	01	O	TAPE	Selector TAPE LED drive — Low: OFF, High: ON
21	RESET	I	$\overline{\text{ICRST}}$	Reset signal input
22	Vdd		Vdd	+5 V power supply

ADJUSTMENT

Tuner unit

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION			SELECTOR: FM				
1	DISCRIMINATOR	(A) 98.0MHz 1kHz,±75kHz dev (K,P,M,Y,X type) 1kHz,±40kHz dev (E,T,M,Y type) 60dBμ (ANT input)	Connect a DC voltmeter between TP3 and TP4. (X05-)	AUTO or MONO 98.0MHz	L2 (X05-)	0V	(a)
2	VCO	(A) 98.0MHz 0 dev 60dBμ (ANT input)	Connect a frequency counter to TP5 and TP6 (GND). (X05-)	AUTO 98.0MHz	VR2 (X05-)	19.00kHz	(b)
3	DISTORTION (STEREO)	(C) 98.0MHz 1kHz,±68.25kHz dev Pilot:±7.5kHz dev (K,P,M,Y,X type) 1kHz,±40kHz dev Pilot:±6kHz dev (E,T,M,Y type) 60dBμ (ANT input)	(B)	MONO 98.0MHz	1FT (W02-)	Minimum distortion	
4	SEPARATION (E,T type only)	(C) 98.0MHz 1kHz,±40kHz dev Pilot ±6kHz dev Selector:L or R 60dBμ (ANT input)	(B)	AUTO 98.0MHz	VR4 (X05-)	Minimum crosstalk	
5	TUNING LEVEL	(A) 98.0MHz 1kHz,±75kHz dev (K,P,M,Y,X type) 1kHz,±45kHz dev (E,T,M,Y type) 14dBμ(ANT input) 75Ω 18dBμ(ANT input)300Ω	(B)	AUTO or MONO 98.0MHz	VR1 (X05-)	Adjust VR1 and stop at the point where ED201(TUNED) goes on.	
AM (MW) SELECTION			SELECTOR:AM(MW)				
(1)	TUNING LEVEL	(D) 1008kHz 400Hz,30% mod 26dBμ(ANT input)	(B)	1008kHz	VR3 (X05-)	Adjust VR3 and stop at the point where ED201 (TUNED) goes on.	

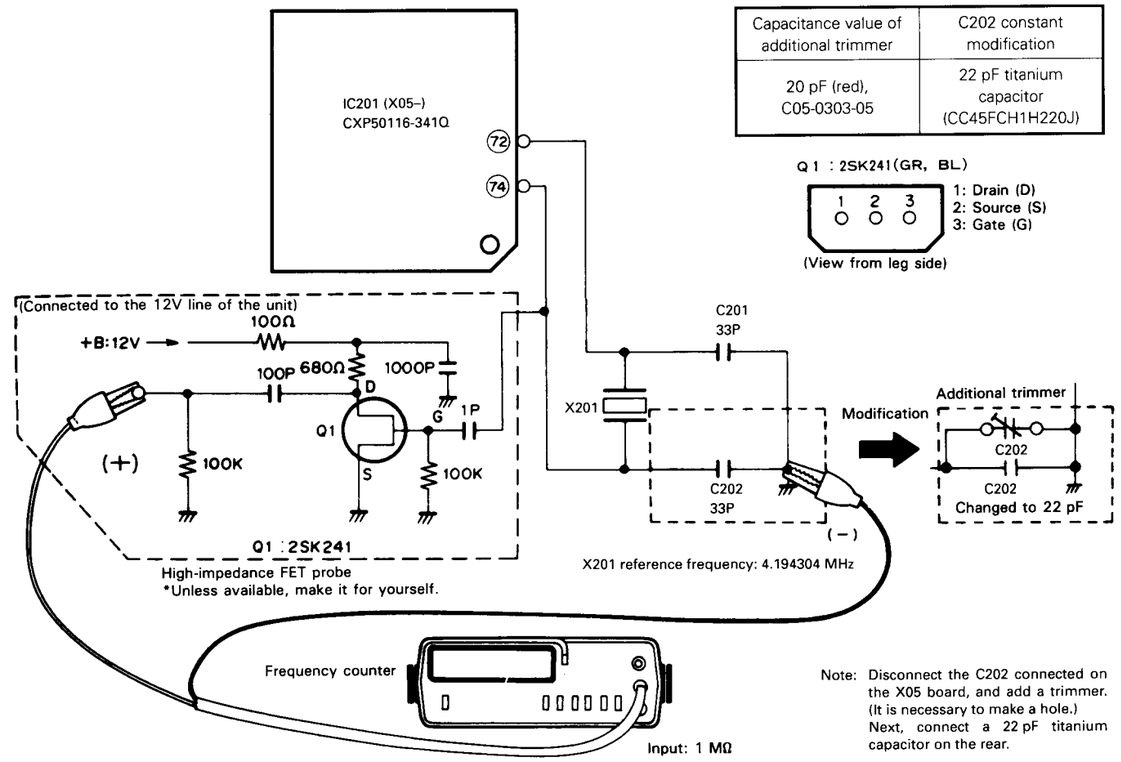




A-722/722L

ADJUSTMENT

Timer accuracy improvement method



Capacitance value of additional trimmer	C202 constant modification
20 pF (red), C05-0303-05	22 pF titanium capacitor (CC45FCH1H220J)

Note: Disconnect the C202 connected on the X05 board, and add a trimmer. (It is necessary to make a hole.) Next, connect a 22 pF titanium capacitor on the rear.

The timer accuracy is within ±40 seconds for one month as a standard. For improved timer accuracy, perform the following procedure:

(1) If the timer accuracy is without the standard, replace X201 (L77-1176-05) near the microprocessor IC on a printed board (X05-).

(2) Even if within the standard, for further improved accuracy, change the constant of C202 in the crystal oscillation circuit of microprocessor IC201 and add a trimmer.

Adjustment method (Use a high-impedance buffer to avoid frequency deviation.)
Connect a high-accuracy frequency counter to pin 74 by way of the FET probe shown above, and adjust the frequency fully up to the first digit of the X201 reference frequency 4,194,304 Hz. (Connect the negative (–) side of the frequency counter to the GND side of C202.)

Note (a) As regards the positive (+) side of the frequency counter, arrange as short a distance as possible between pin 74 of IC201 and 1P of the input stage of the FET probe.

Note (b) Perform the trimmer adjustment after energization of around 10 minutes at normal temperature.

(3) Monthly error calculation method
For example, when the result of measurement at pin 74 by the frequency counter is fx = 4,194,275 Hz...
(Reference frequency fo = 4,194,304 [Hz])

$$\text{Monthly error [sec]} = \frac{fx - fo}{fo} \times \text{the number of seconds taken for one month}$$

$$= \frac{4{,}194{,}275 - 4{,}194{,}304}{4{,}194{,}304} \times (60 \times 60 \times 24 \times 30)$$

$$= -17.9 \text{ [sec]}$$

* A minus value as the monthly error means a loss.

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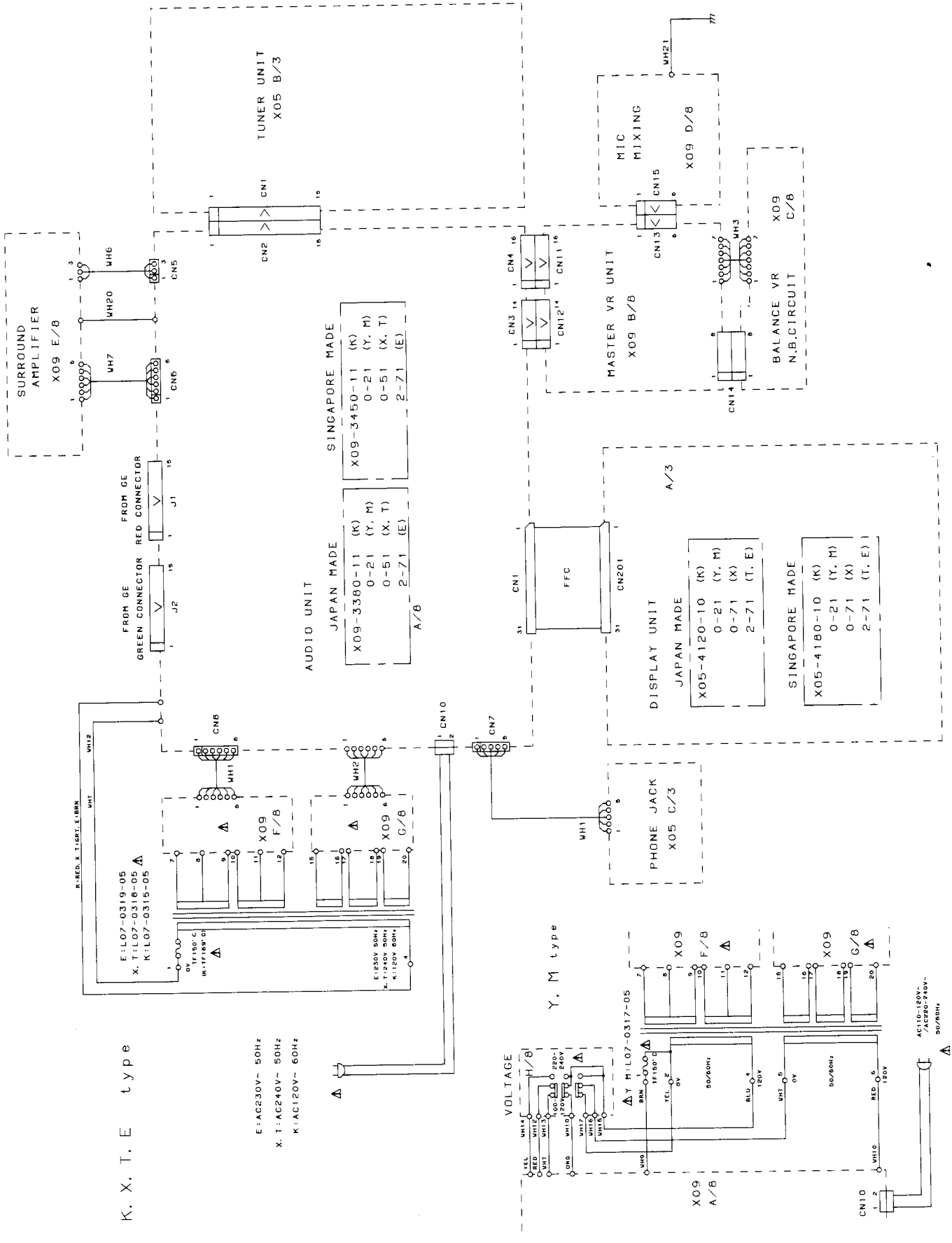
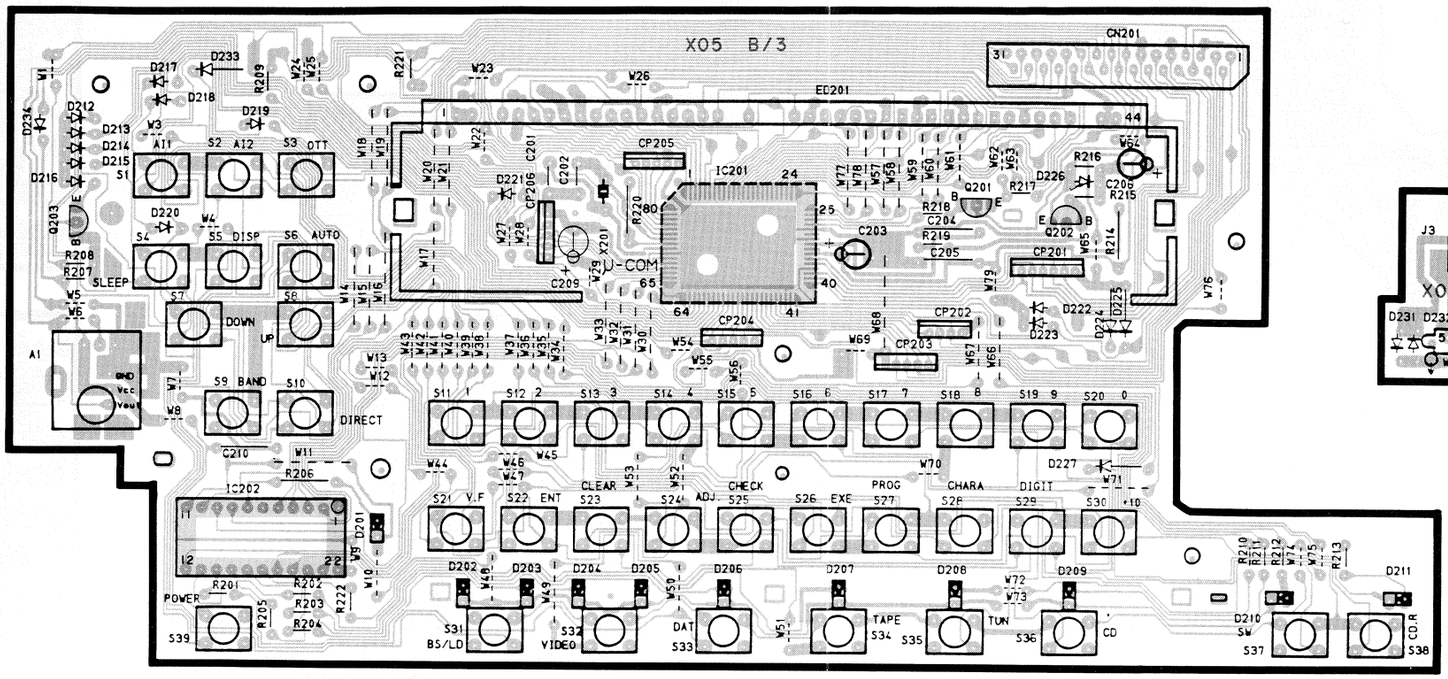
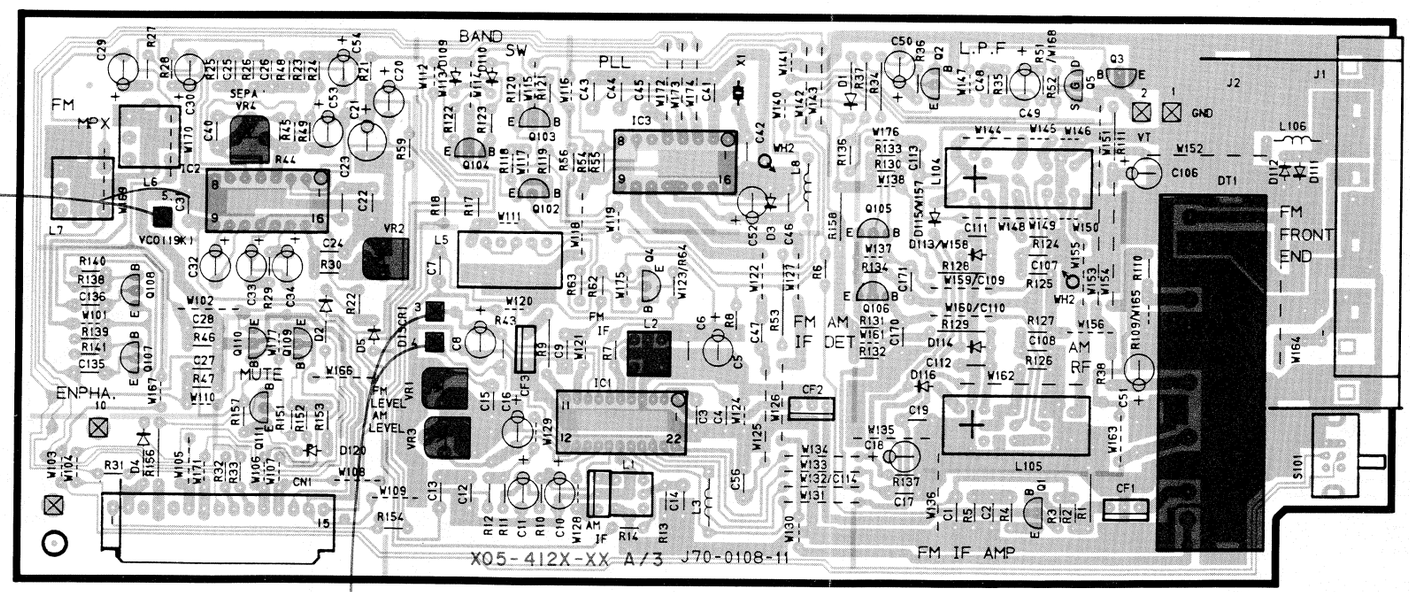

TUNER UNIT
X05 B/3
CN1
CN2
SURROUND
AMPLIFIER
X09 E/8
WH6
WH20
WH7
CN5
CN6
FROM GE
RED CONNECTOR
J1
FROM GE
GREEN CONNECTOR
J2
AUDIO UNIT
JAPAN MADE
X09-3380-11 (K)
0-21 (Y, M)
0-51 (X, T)
2-71 (E)
A/8
SINGAPORE MADE
X09-3450-11 (K)
0-21 (Y, M)
0-51 (X, T)
2-71 (E)
MASTER VR UNIT
X09 B/8
CN3
CN12
CN4
CN11
MIC
MIXING
X09 D/8
CN15
CN13
WH21
WH3
BALANCE VR
N.B.CIRCUIT
X09
C/8
CN14
DISPLAY UNIT
A/3
CN1
FFC
CN201
JAPAN MADE
X05-4120-10 (K)
0-21 (Y, M)
0-71 (X)
2-71 (T, E)
SINGAPORE MADE
X05-4180-10 (K)
0-21 (Y, M)
0-71 (X)
2-71 (T, E)
PHONE JACK
X05 C/3
WH1
CN8
WH12
WH1
WH2
CN10
CN7
X09
F/8
X09
G/8
E:L07-0319-05
X, T:L07-0318-05
K:L07-0315-05
K:RED, X, T:GRY, E:BRN
E:AC230V~ 50Hz
X, T:AC240V~ 50Hz
K:AC120V~ 60Hz
K, X, T, E type
Y, M type
VOLTAGE
H/8
Y M:L07-0317-05
X09
A/8
CN10

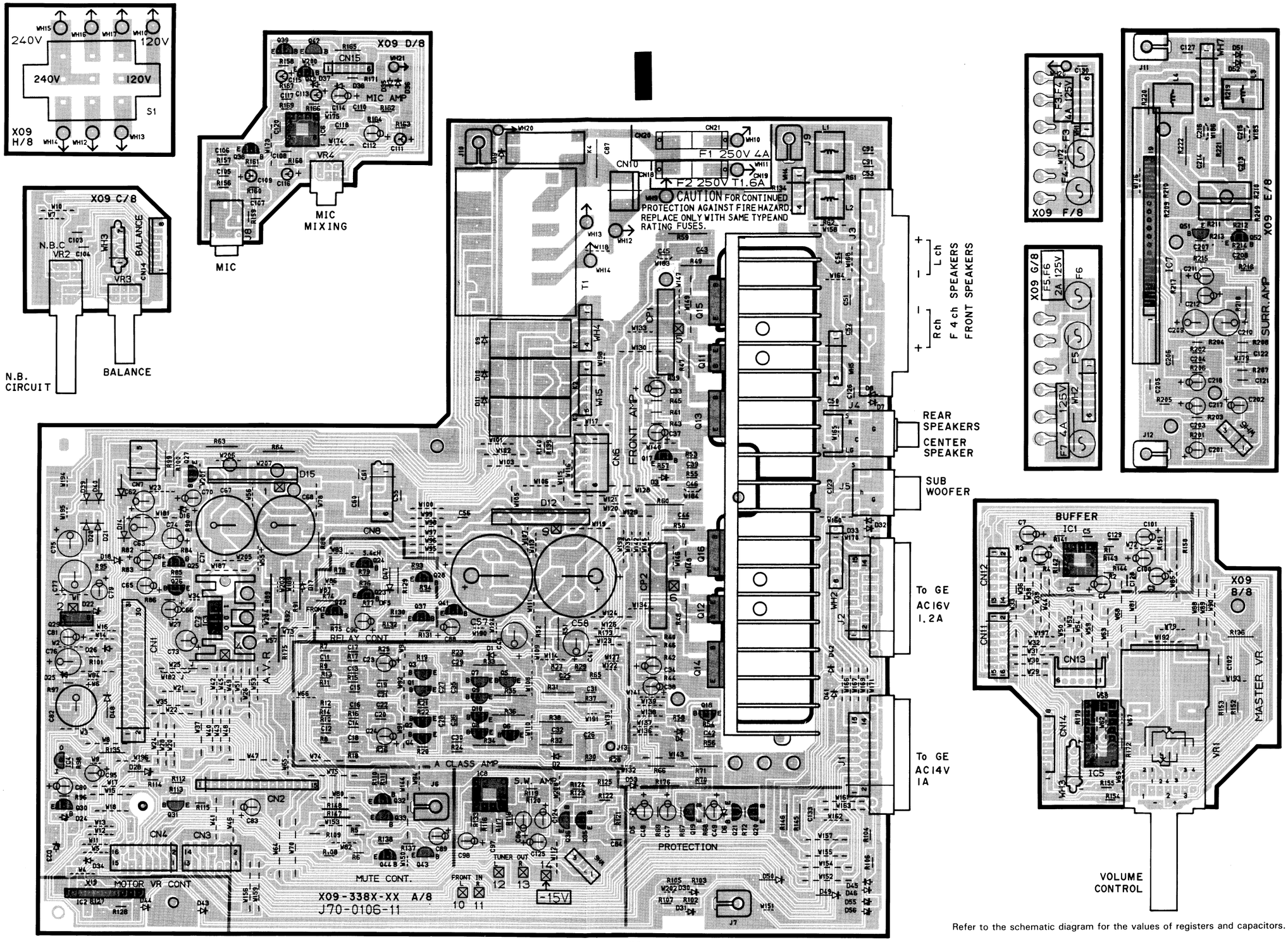
PC BOARD (Component side view)



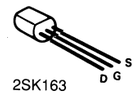


Refer to the schematic diagram for the values of registers and capacitors.

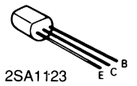
PC BOARD (Component side view)



Refer to the schematic diagram for the values of registers and capacitors.



2SK163
2SK364



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2SA954
2SA992
2SB764
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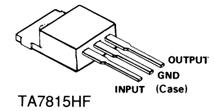
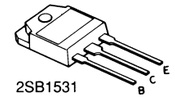
2SC1923
2SC2003
2SC2878
2SD1302



TA7815HF
UPC7815HF



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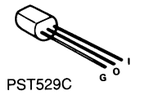

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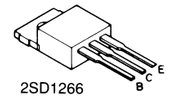
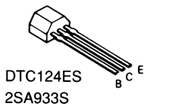
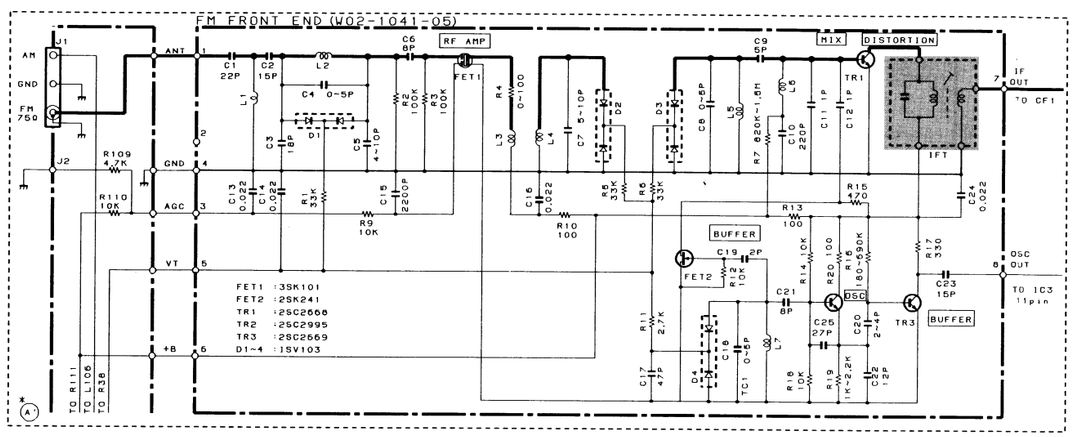
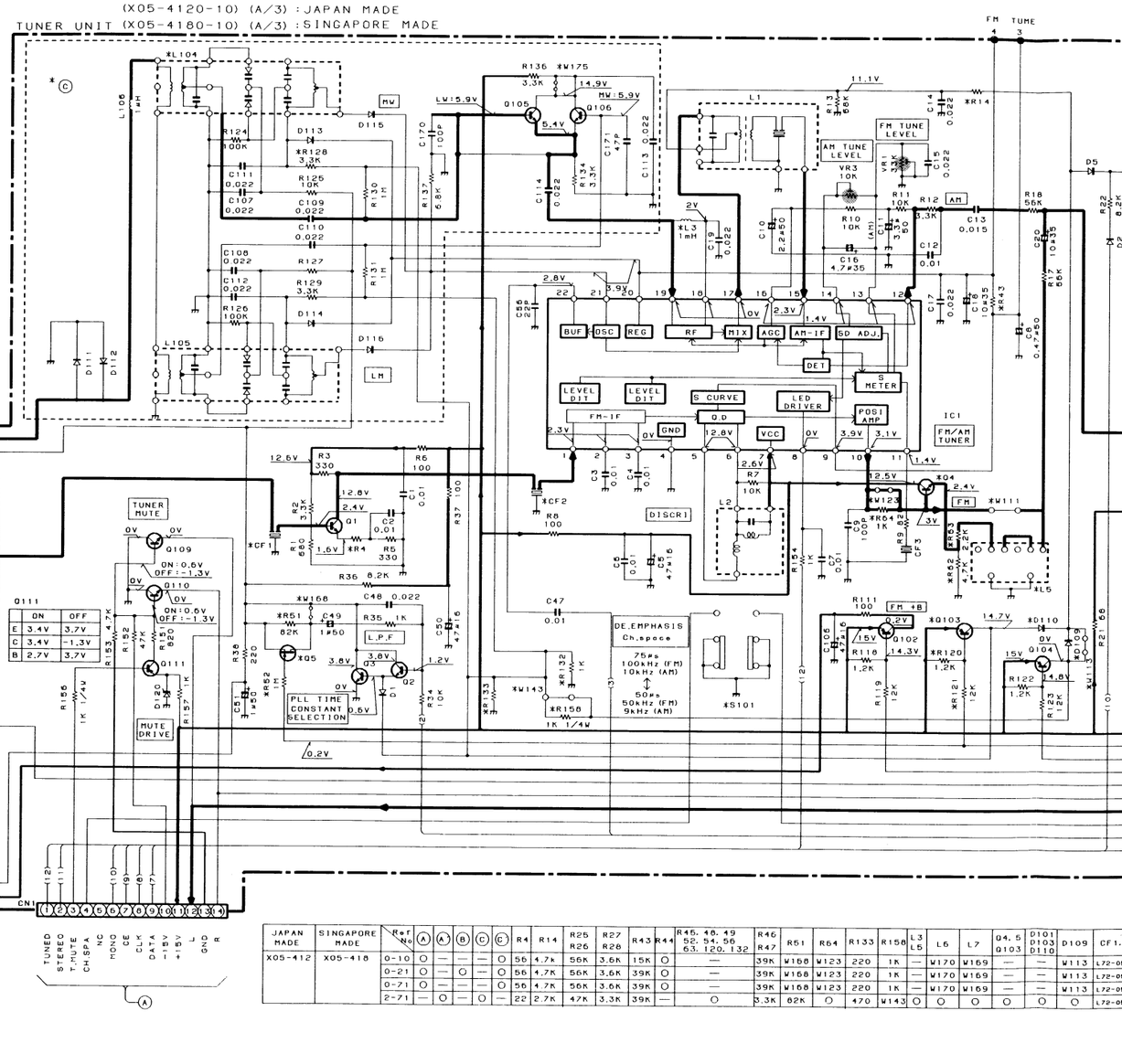


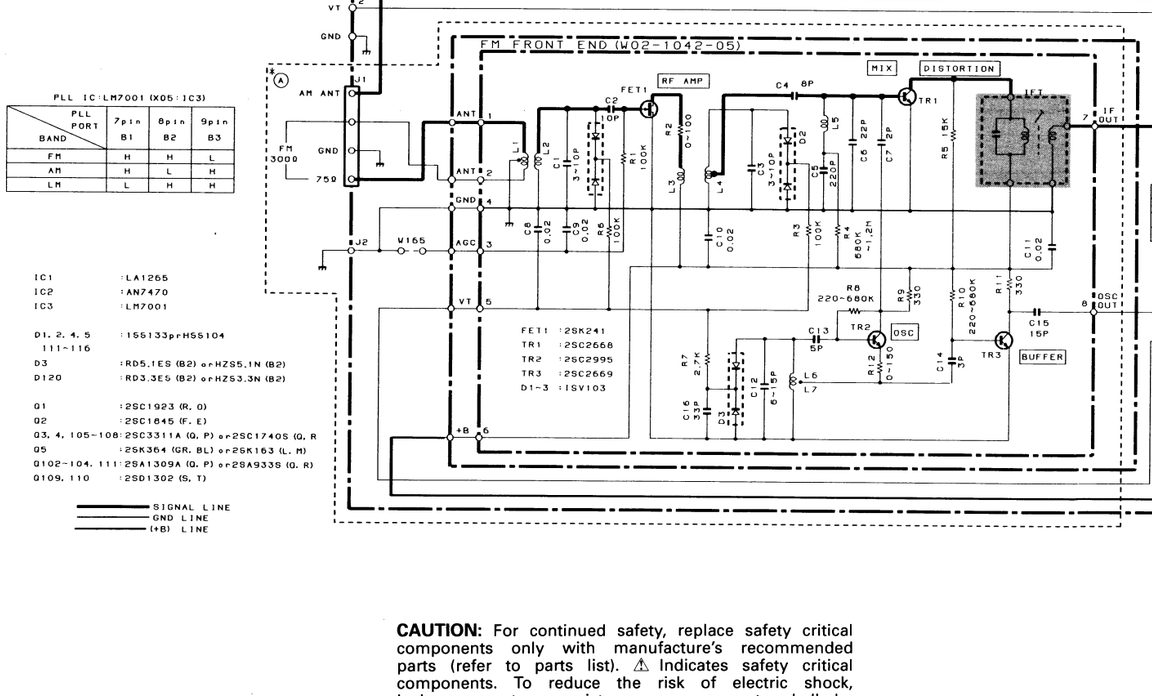
2SD1266



DTC124ES
2SA933S
2SC1740S







PLL IC:LM7001 (X05:IC3)

PLL PORT / BAND	7pin B1	8pin B2	9pin B3
FM	H	H	L
AM	H	L	H
LM	L	H	H

IC1 :LA1265
IC2 :AN7470
IC3 :LM7001

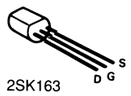
D1, 2, 4, 5 111~116 :1SS133 or HSS104
D3 :RD5.1ES (B2) or HZS5.1N (B2)
D120 :RD3.3ES (B2) or HZS3.3N (B2)

Q1 :2SC1923 (R, O)
Q2 :2SC1845 (F, E)
Q3, 4, 105~108 :2SC3311A (Q, P) or 2SC1740S (Q, R)
Q5 :2SK364 (GR, BL) or 2SK163 (L, M)
Q102~104, 111 :2SA1309A (Q, P) or 2SA933S (Q, R)
Q109, 110 :2SD1302 (S, T)

SIGNAL LINE
GND LINE
(+B) LINE

JAPAN MADE	SINGAPORE MADE	Ref No.	Ⓐ	Ⓐ	Ⓑ	Ⓒ	Ⓒ	R4	R14	R25 R26	R27 R28	R43	R44	R45, 48, 49 52, 54, 56 63, 120, 132	R46 R47	R51	R64	R133	R158	L3 L5	L6	L7	Q4, 5 Q103	D101 D103 D110	D109	CF1,
X05-412	X05-418	0-10	O	—	—	—	O	56	4.7k	56K	3.6k	15K	O	—	39K	W158	W123	220	1K	—	W170	W169	—	—	W113	L72-0
		0-21	O	—	O	—	O	56	4.7K	56K	3.6K	39K	O	—	39K	W158	W123	220	1K	—	W170	W169	—	—	W113	L72-0
		0-71	O	—	—	—	O	56	4.7K	56K	3.6K	39K	O	—	39K	W158	W123	220	1K	—	W170	W169	—	—	W113	L72-0
		2-71	—	O	—	O	—	22	2.7K	47K	3.3K	39K	—	O	3.3K	62K	O	470	W143	O	O	O	O	O	O	L72-0

CAUTION: For continued safety, replace safety critical components only with manufacture's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.



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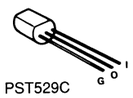
2SK364



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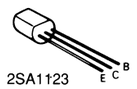

2SA1123
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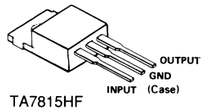
2SA992
2SB764
2SC1845
2SC1923
2SC2003
2SC2878
2SD1302



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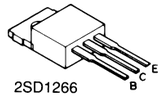
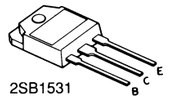
UPC7815HF



2SD1266



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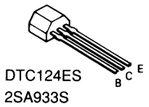

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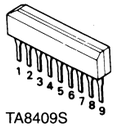

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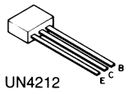

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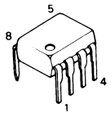

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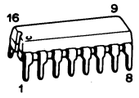
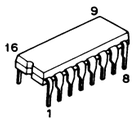


LM7001



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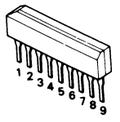

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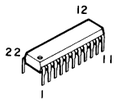
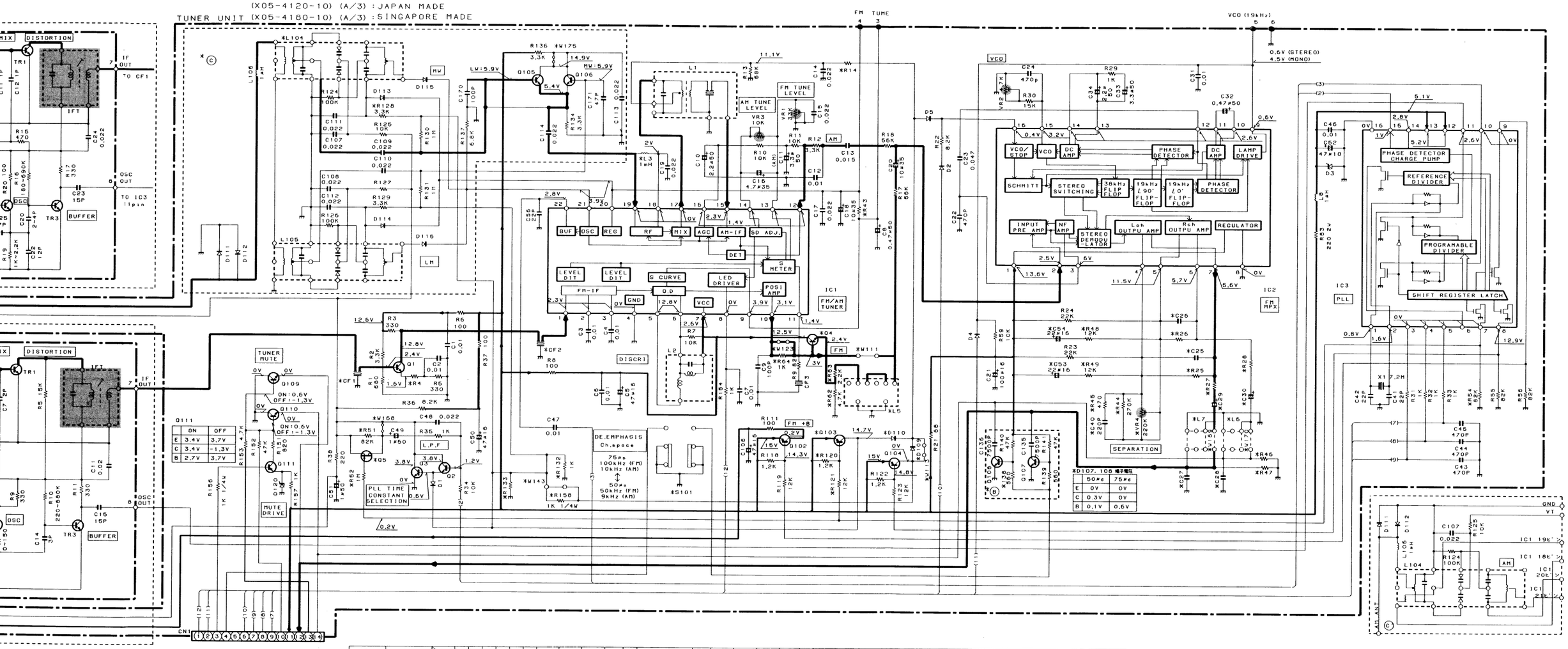


LA1265

(X05-4120-10) (A/3) : JAPAN MADE
TUNER UNIT (X05-4180-10) (A/3) : SINGAPORE MADE



Q111	ON	OFF
E	3.4V	3.7V
C	3.4V	-1.3V
B	2.7V	3.7V

Q109 / Q110	ON	OFF
	0.6V	-1.3V

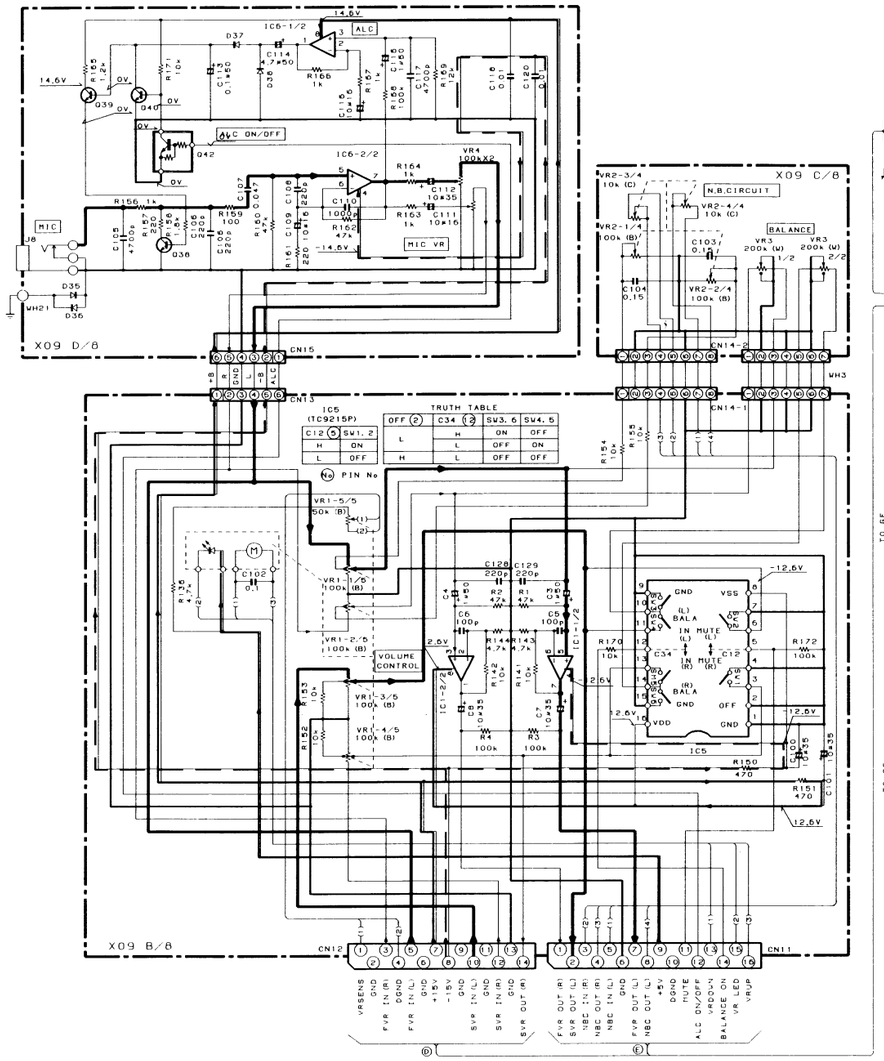
*D107, 108 種子電圧	50#s	75#s
E	0V	0V
C	0.3V	0V
B	0.1V	0.6V

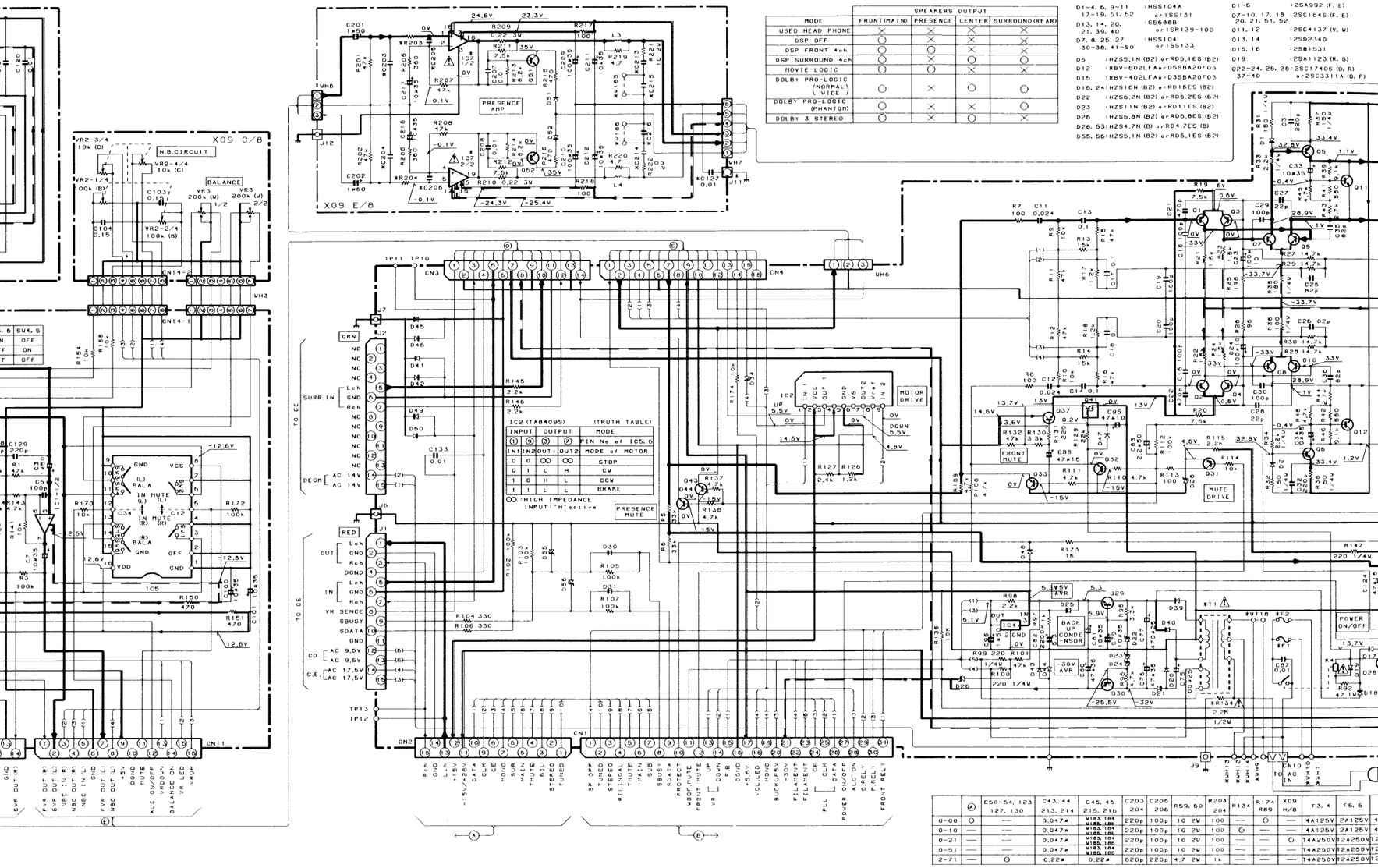
JAPAN MADE	SINGAPORE MADE	Ref No	Ⓐ	Ⓐ	Ⓑ	Ⓒ	Ⓒ	R4	R14	R25 R26	R27 R28	R43	R44	R45. 48. 49 52. 54. 56 63. 120. 132	R46 R47	R51	R64	R133	R158	L3 L5	L6	L7	Q4, 5 Q103	D101 D103 D110	D109	CF1, 2	VR4	S101	C25 C26	C27 C28	C29 C30	C40 C53 C54	W111
X05-412	X05-418	0-10	O	—	—	—	O	56	4.7K	56K	3.6K	15K	O	—	39K	W168	W123	220	1K	—	W170	W169	—	—	W113	L72-0531	—	X	150P	0.022	1#50	—	O
		0-21	O	—	O	—	O	56	4.7K	56K	3.6K	39K	O	—	39K	W168	W123	220	1K	—	W170	W169	—	—	W113	L72-0531	—	O	150P	0.012	1#50	—	O
		0-71	O	—	—	—	O	56	4.7K	56K	3.6K	39K	O	—	39K	W168	W123	220	1K	—	W170	W169	—	—	W113	L72-0531	—	X	150P	0.012	1#50	—	O
		2-71	—	O	—	O	—	22	2.7K	47K	3.3K	39K	—	O	3.3K	82K	O	470	W143	O	O	O	O	O	O	L72-0536	O	X	1000P	4700P	2.2#50	O	—

DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.

Y05-2560-11

A-722/722L
KENWOOD





CAUTION: For continued safety, replace safety critical components only with manufacture's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages a
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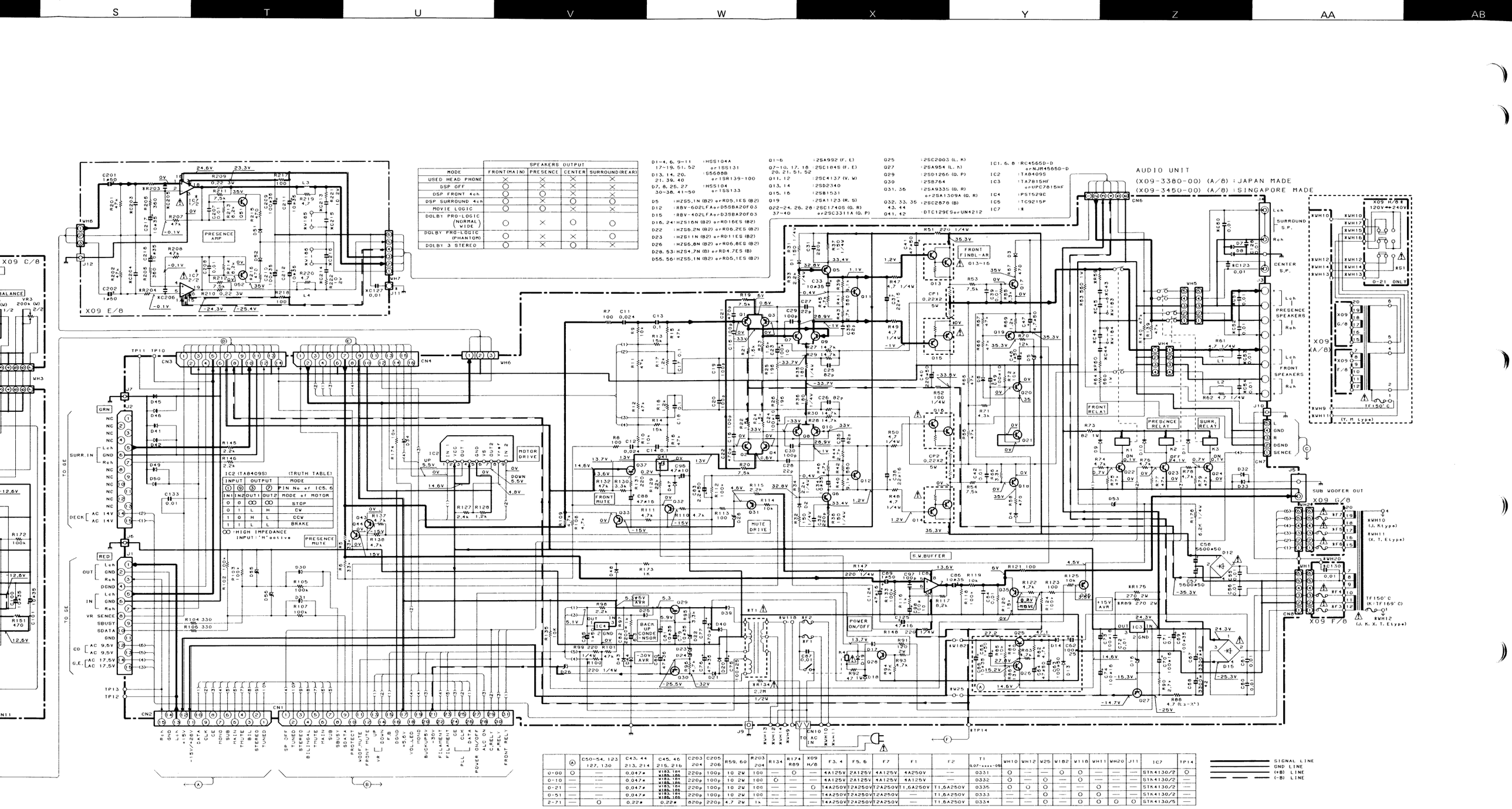

MODE	SPEAKERS OUTPUT FRONT(MAIN)	PRESENCE	CENTER	SURROUND(REAR)
USED HEAD PHONE	×	×	×	×
DSP OFF	○	×	×	×
DSP FRONT 4ch	○	○	×	×
DSP SURROUND 4ch	○	×	○	○
MOVIE LOGIC	○	○	×	×
DOLBY PRO-LOGIC (NORMAL / WIDE)	○	×	○	○
DOLBY PRO-LOGIC (PHANTOM)	○	×	×	○
DOLBY 3 STEREO	○	×	○	×

D1~4, 6, 9~11 : HSS104A or 1SS131
17~19, 51, 52
D13, 14, 20, 21, 39, 40 : S5688B or 1SR139-100
D7, 8, 25, 27, 30~38, 41~50 : HSS104 or 1SS133
D5 : HZS5.1N (B2) or RD5.1ES (B2)
D12 : RBV-602LFA or D5SBA20F03
D15 : RBV-402LFA or D3SBA20F03
D16, 24 : HZS10N (B2) or RD10ES (B2)
D22 : HZS6.2N (B2) or RD6.2ES (B2)
D23 : HZS11N (B2) or RD11ES (B2)
D26 : HZS6.8N (B2) or RD6.8ES (B2)
D28, 53 : HZS4.7N (B) or RD4.7ES (B)
D55, 56 : HZS5.1N (B2) or RD5.1ES (B2)

Q1~6 : 2SA992 (F, E)
Q7~10, 17, 18, 20, 21, 51, 52 : 2SC1685 (F, E) or NJM4565D-D
Q11, 12 : 2SC4137 (V, W)
Q13, 14 : 2SD2340
Q15, 16 : 2SB1531
Q19 : 2SA1123 (R, S)
Q22~24, 25, 26, 37~40 : 2SC1740S (Q, R) or 2SC3311A (Q, P)
Q25 : 2SC2003 (L, K)
Q27 : 2SA954 (L, K)
Q29 : 2SD1266 (Q, P)
Q30 : 2SB764
Q31, 36 : 2SA933S (Q, R) or 2SA1309A (Q, R)
Q32, 33, 35, 43, 44 : 2SC2878 (B)
Q41, 42 : DTC129ES or UN4212
IC1, 6, 8 : RC4565D-D or NJM4565D-D
IC2 : TA8409S
IC3 : TA7815HF or UPC7815HF
IC4 : PST529C
IC5 : TC9215P
IC7 : *

INPUT ①	INPUT ⑨	OUTPUT ③	OUTPUT ⑦	MODE (PIN No. of IC5, 6)
IN1	IN2	OUT1	OUT2	MODE of MOTOR
0	0	∞	∞	STOP
0	1	L	H	CW
1	0	H	L	CCW
1	1	L	L	BRAKE

∞ : HIGH IMPEDANCE
INPUT : "H" active

	Ⓐ	C50~54, 123, 127, 130	C43, 44, 213, 214	C45, 46, 215, 216	C203, 204	C205, 206	R59, 60	R203, 204	R134	R174, R89	X09 H/8	F3, 4	F5, 6	F7	F1	F2	T1	WH10	WH12	W25	W182	W118	WH11	WH20	J11	IC7	TP14
0-00	○	—	—	0.047# W193.104 W193.106	220p	100p	10 2W	100	—	○	—	4A125V	2A125V	4A125V	4A250V	—	0331	○	—	—	○	○	—	—	—	STK4130/2	○
0-10	—	—	—	0.047# W193.104 W193.106	220p	100p	10 2W	100	○	—	—	4A125V	2A125V	4A125V	4A125V	—	0332	○	—	○	—	○	—	—	—	STK4130/2	—
0-21	—	—	—	0.047# W193.104 W193.106	220p	100p	10 2W	100	—	—	○	T4A250V	T2A250V	T2A250V	T1.6A250V	T1.6A250V	0335	○	○	○	—	○	—	—	—	STK4130/2	—
0-51	—	—	—	0.047# W193.104 W193.106	220p	100p	10 2W	100	—	—	—	T4A250V	T2A250V	T2A250V	—	T1.6A250V	0333	—	—	○	—	○	—	○	—	STK4130/2	—
2-71	—	○	—	0.22#	820p	220p	4.7 2W	1k	—	—	—	T4A250V	T2A250V	T2A250V	—	T1.6A250V	0334	—	—	○	—	○	○	○	○	STK4130/5	—

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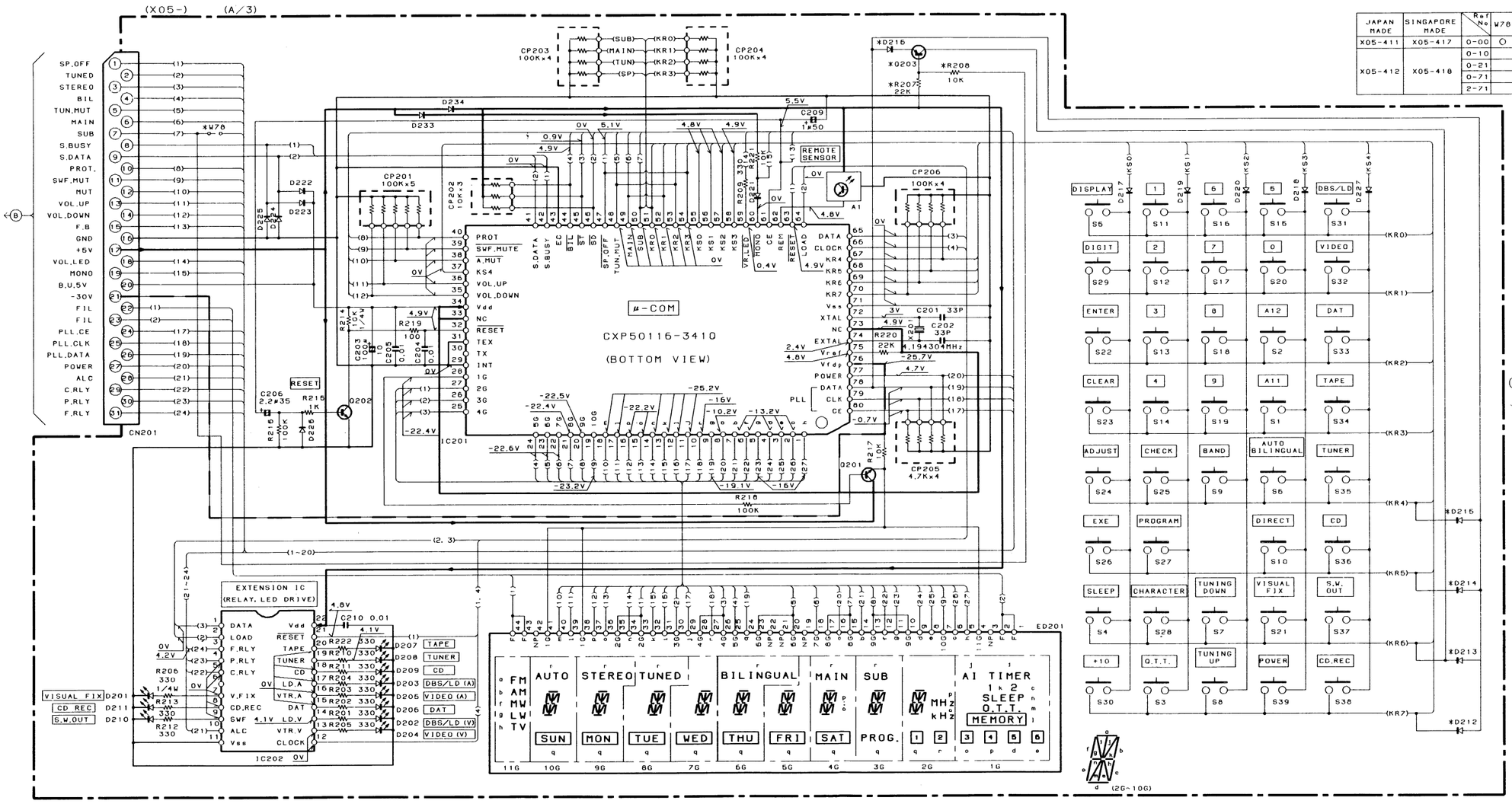
Y05-2560-11

A-722/722L

KENWOOD



JAPAN MADE	SINGAPORE MADE	Ref No	W78	D212	D213	D214	D215	D203 D216	R207 R208
X05-411	X05-417	0-00	○						
X05-412	X05-418	0-10		○					
		0-21		○		○		○	○
		0-71		○	○	○			
		2-71		○	○	○	○		

D201, 202, 204 : B30-2408-05
D203, 205~211 : B30-1012-05
D212~227, 231~234 : HSS104 or 1SS133
Q201, 202 : 2SC1740S (Q, R) or 2SC3311A (Q, R)
Q203 : 2SA933S (Q, R) or 2SA1309A (Q, R)
IC201 : CXP50116-3410
IC202 : MSM59371

CAUTION: For continued safety, replace safety critical components only with manufacture's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

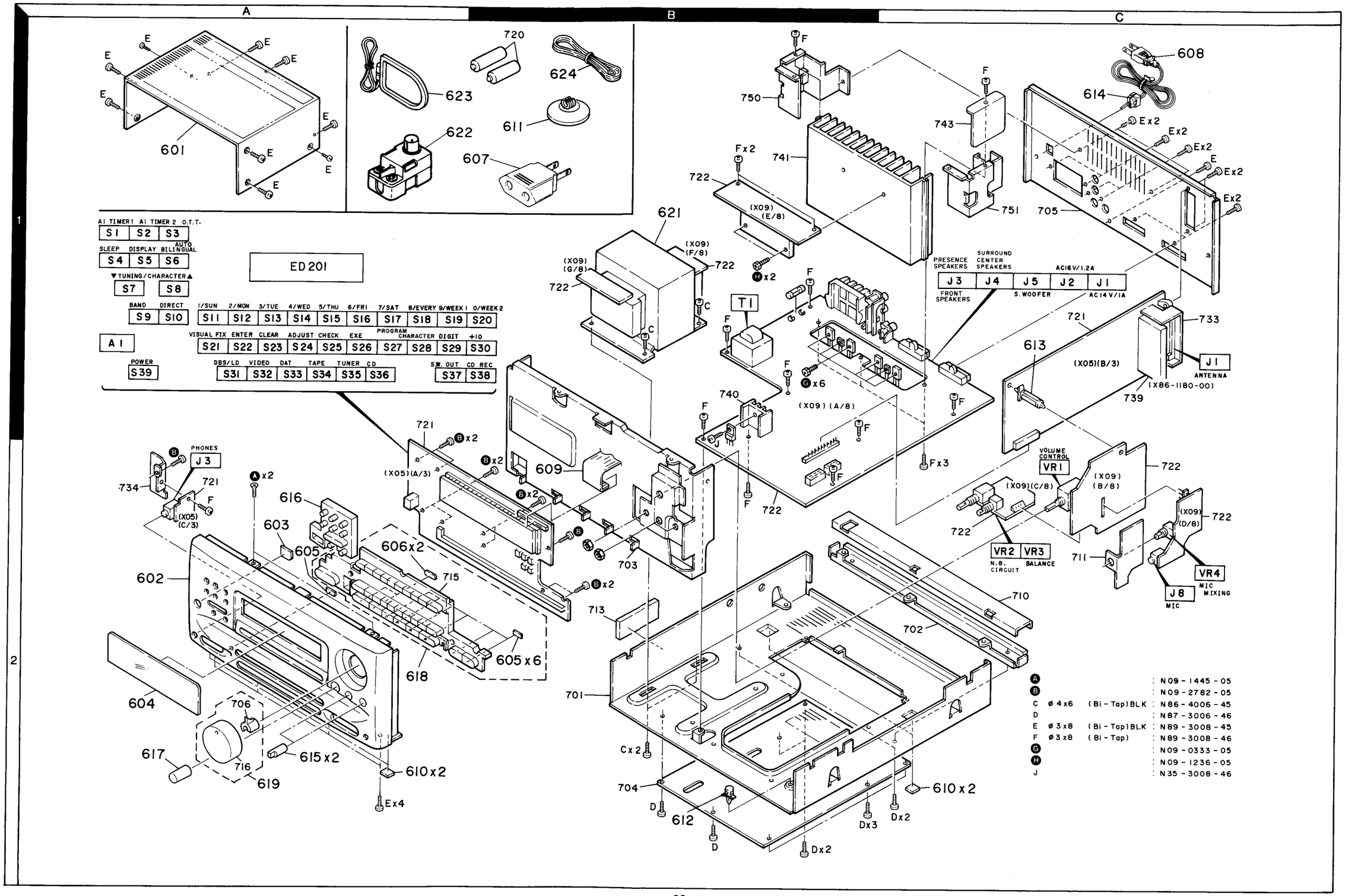
DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.

Y05-2560-11

A-722/722L
KENWOOD

A-722/722L

EXPLODED VIEW



* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht gellefert.

No.1

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			A－722／722L (JAPAN MADE)			
601	1A	*	A01-1949-01	METALLIC CABINET		
602	2A	*	A60-0074-01	PANEL	KYMX	
602	2A	*	A60-0075-01	PANEL	TE	
603	2A	*	B03-2728-04	DRESSING PLATE		
604	2A	*	B10-1855-03	FRONT GLASS		
605	2A,2B	*	B12-0160-04	INDICATOR		
606	2A	*	B12-0161-04	INDICATOR		
-			B46-0092-03	WARRANTY CARD	K	
-			B46-0094-03	WARRANTY CARD	Y	
-			B46-0095-03	WARRANTY CARD	Y	
-			B46-0096-23	WARRANTY CARD	X	
-			B46-0122-13	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-			B58-0923-14	CAUTION CARD	TE	
-		*	B60-0508-00	INSTRUCTION MANUAL(ENGLISH)		
-		*	B60-0509-00	INSTRUCTION MANUAL(FRENCH)	E	
-		*	B60-0510-00	INSTRUCTION MANUAL(GERMAN)	E	
-		*	B60-0511-00	INSTRUCTION MANUAL(DUTCH)	E	
-		*	B60-0512-00	INSTRUCTION MANUAL(ITALIAN)	E	
-		*	B60-0513-00	INSTRUCTION MANUAL(SPANISH)	M	
-		*	B60-0583-00	INSTRUCTION MANUAL(CHINESE)	M	
⚠ 607	1B		E03-0115-05	AC PLUG ADAPTER	M	
⚠ 608	1C		E30-2592-15	AC POWER CORD	ME	
⚠ 608	1C		E30-2593-15	AC POWER CORD	T	
⚠ 608	1C		E30-2594-15	AC POWER CORD	X	
⚠ 608	1C		E30-2605-05	AC POWER CORD	Y	
⚠ 608	1C	*	E30-2650-05	AC POWER CORD	K	
609	2B		E31-4599-15	WIRING HARNESS		
610	2A,2C	*	G11-2052-14	CUSHION		
-		*	H10-5151-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-5152-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H11-0042-04	POLYSTYRENE FOAMED BOARD	XTE	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
-			H25-0397-04	PROTECTION BAG		
-		*	H50-0093-04	ITEM CARTON CASE	KYM	
-		*	H50-0094-04	ITEM CARTON CASE	X	
-		*	H50-0095-04	ITEM CARTON CASE	TE	
611	1A		J19-2815-04	ANTENNA HOLDER		
612	2B		J19-3300-05	UNIT HOLDER		
613	1C		J19-3331-05	UNIT HOLDER		
⚠ 614	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
615	2A		K29-3960-04	KNOB (BALANCE,MIC MIXING)		
616	2A	*	K29-4173-02	KNOB (AI TIMER 1,2 etc.)		
617	2A	*	K29-4175-04	KNOB (N.B.CIRCUIT)		
618	2A	*	K29-4176-12	KNOB ASSY(INPUT SELECTOR)		
619	2A	*	K29-4178-04	KNOB ASSY(VOLUME CONTROL)		
⚠ 621	1B	*	L07-0315-05	POWER TRANSFORMER	K	
⚠ 621	1B	*	L07-0317-05	POWER TRANSFORMER	YM	
⚠ 621	1B	*	L07-0318-05	POWER TRANSFORMER	XT	

E: Scandinavia & Europe K: USA P: Canada
Y: PX (Far East, Hawaii) T: England M: Other Areas
Y: AAFES (Europe) X: Australia

A-722: K, Y, M, X type
A-722L: T, E type

⚠ indicates safety critical components.

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No.2

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
⚠ 621	1B	*	L07-0319-05	POWER TRANSFORMER	E	
A			N09-1445-05	SET SCREW (M3X8)		
B			N09-2782-05	TAPTITE SCREW (2.6X8)		
C			N86-4006-45	BINDING HEAD TAPTITE SCREW		
D			N87-3006-46	BRAZIER HEAD TAPTITE SCREW		
E			N89-3008-45	BINDING HEAD TAPTITE SCREW		
F			N89-3008-46	BINDING HEAD TAPTITE SCREW		
622	1B		T90-0136-05	ANTENNA ADAPTOR	TE	
623	1B		T90-0173-05	LOOP ANTENNA		
624	1B		T90-0176-05	T TYPE ANTENNA		
601	1A	*	A01-1978-01	METALLIC CABINET		
602	2A	*	A60-0074-01	PANEL	KYMX	
602	2A	*	A60-0075-01	PANEL	TE	
			A－722／722L (SINGAPORE MADE)			
603	2A	*	B03-2728-04	DRESSING PLATE		
604	2A	*	B10-1855-03	FRONT GLASS		
605	2A,2B	*	B12-0160-04	INDICATOR		
606	2A	*	B12-0161-04	INDICATOR		
-			B46-0092-03	WARRANTY CARD	K	
-			B46-0094-03	WARRANTY CARD	Y	
-			B46-0095-03	WARRANTY CARD	Y	
-			B46-0096-23	WARRANTY CARD	X	
-			B46-0122-13	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-			B58-0923-14	CAUTION CARD	TE	
-		*	B60-0508-00	INSTRUCTION MANUAL(ENGLISH)		
-		*	B60-0509-00	INSTRUCTION MANUAL(FRENCH)	E	
-		*	B60-0510-00	INSTRUCTION MANUAL(GERMAN)	E	
-		*	B60-0511-00	INSTRUCTION MANUAL(DUTCH)	E	
-		*	B60-0512-00	INSTRUCTION MANUAL(ITALIAN)	E	
-		*	B60-0513-00	INSTRUCTION MANUAL(SPANISH)	M	
-		*	B60-0583-00	INSTRUCTION MANUAL(CHINESE)	M	
⚠ 607	1B		E03-0115-05	AC PLUG ADAPTER	M	
⚠ 608	1C		E30-2592-15	AC POWER CORD	ME	
⚠ 608	1C		E30-2593-15	AC POWER CORD	T	
⚠ 608	1C		E30-2594-15	AC POWER CORD	X	
⚠ 608	1C		E30-2605-05	AC POWER CORD	Y	
⚠ 608	1C	*	E30-2650-05	AC POWER CORD	K	
609	2B		E31-4599-15	WIRING HARNESS		
610	2A,2C	*	G11-2052-14	CUSHION		
-		*	H10-5188-02	POLYSTYRENE FOAMED FIXTURE	KYM	
-		*	H10-5189-02	POLYSTYRENE FOAMED FIXTURE	KYM	
-		*	H10-5212-02	POLYSTYRENE FOAMED FIXTURE	XTE	
-		*	H10-5213-02	POLYSTYRENE FOAMED FIXTURE	XTE	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
-			H25-0397-04	PROTECTION BAG		
-		*	H50-0151-04	ITEM CARTON CASE	KYM	
-		*	H50-0152-04	ITEM CARTON CASE	X	
-		*	H50-0153-04	ITEM CARTON CASE	T	
-		*	H50-0154-04	ITEM CARTON CASE	E	

E: Scandinavia & Europe K: USA P: Canada
Y: PX (Far East, Hawaii) T: England M: Other Areas
Y: AAFES (Europe) X: Australia

A-722: K, Y, M, X type
A-722L: T, E type

⚠ indicates safety critical components.

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No.3

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
611	1A		J19-2815-04	ANTENNA HOLDER		
612	2B		J19-3300-05	UNIT HOLDER		
613	1C		J19-3331-05	UNIT HOLDER		
⚠ 614	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
615	2A		K29-3960-04	KNOB (BALANCE,MIC MIXING)		
616	2A	*	K29-4173-02	KNOB (AI TIMER 1,2 etc.)		
617	2A	*	K29-4175-04	KNOB (N.B.CIRCUIT)		
618	2A	*	K29-4176-12	KNOB ASSY(INPUT SELECTOR)		
619	2A	*	K29-4178-04	KNOB ASSY(VOLUME CONTROL)		
⚠ 621	1B	*	L07-0315-05	POWER TRANSFORMER	K	
⚠ 621	1B	*	L07-0317-05	POWER TRANSFORMER	YM	
⚠ 621	1B	*	L07-0318-05	POWER TRANSFORMER	XT	
⚠ 621	1B	*	L07-0319-05	POWER TRANSFORMER	E	
A			N09-1445-05	SET SCREW (M3X8)		
B			N09-2782-05	TAPTITE SCREW (2.6X8)		
C			N86-4006-45	BINDING HEAD TAPTITE SCREW		
D			N87-3006-46	BRAZIER HEAD TAPTITE SCREW		
E			N89-3008-45	BINDING HEAD TAPTITE SCREW		
F			N89-3008-46	BINDING HEAD TAPTITE SCREW		
622	1B		T90-0136-05	ANTENNA ADAPTOR	TE	
623	1B		T90-0174-05	LOOP ANTENNA		
624	1B		T90-0175-05	T TYPE ANTENNA		
D201,202		*	B30-2408-05	LED		
D203			B30-1012-05	LED(SLP-981C-50)		
D204		*	B30-2408-05	LED		
D205-211			B30-1012-05	LED(SLP-981C-50)		
			TUNER UNIT (X05－4120－10 : JAPAN MADE, X05－4180－10 : SINGAPORE MADE)			
C1 -4			CK45FF1H103Z	CERAMIC 0.010UF Z		
C5			CE04KW1C470M	ELECTRO 47UF 16WV		
C6 ,7			CK45FF1H103Z	CERAMIC 0.010UF Z		
C8			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C9			CC45FSL1H101J	CERAMIC 100PF J		
C10			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C11			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C12			CK45FF1H103Z	CERAMIC 0.010UF Z		
C13			CQ92FM1H153J	MYLAR 0.015UF J		
C14 ,15			CK45FF1H223Z	CERAMIC 0.022UF Z		
C16			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C17			CK45FF1H223Z	CERAMIC 0.022UF Z		
C18			CE04KW1V100M	ELECTRO 10UF 35WV		
C19			CK45FF1H223Z	CERAMIC 0.022UF Z		
C20			CE04KW1V100M	ELECTRO 10UF 35WV		
C21			CE04KW1C101M	ELECTRO 100UF 16WV		
C22			CK45FB1H471K	CERAMIC 470PF K		
C23			CF92FV1H473J	MF 0.047UF J		
C24			CC93FCH1H471J	CERAMIC 470PF J		
C25 ,26			CC45FSL1H151J	CERAMIC 150PF J	KYMX	
C25 ,26			CQ92FM1H102J	MYLAR 1000PF J	TE	
C27 ,28			CQ92FM1H123J	MYLAR 0.012UF J	YMX	
C27 ,28			CQ92FM1H223J	MYLAR 0.022UF J	K	
C27 ,28			CQ92FM1H472J	MYLAR 4700PF J	TE	
C29 ,30			CE04KW1H010M	ELECTRO 1.0UF 50WV	KYMX	

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A-722: K, Y, M, X type
A-722L: T, E type

⚠ indicates safety critical components.

* New Parts
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Teile ohne **Parts No.** werden nicht gellefert.

No.4

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C29 ,30			CE04KW1H2R2M	ELECTRO 2.2UF 50WV	TE	
C31			CK45FF1H103Z	CERAMIC 0.010UF Z		
C32			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C33			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C34			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C40			CC45FSL1H221J	CERAMIC 220PF J	TE	
C41 ,42			CC45FCH1H220J	CERAMIC 22PF J		
C43 -45			CK45FB1H471K	CERAMIC 470PF K		
C46 ,47			CK45FF1H103Z	CERAMIC 0.010UF Z		
C48			CQ92FM1H223J	MYLAR 0.022UF J		
C49			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C50			CE04KW1C470M	ELECTRO 47UF 16WV		
C51			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C52			CE04KW1A470M	ELECTRO 47UF 10WV		
C53 ,54			CE04KW1C220M	ELECTRO 22UF 16WV	TE	
C56			CC45FSL1H220J	CERAMIC 22PF J		
C106			CE04KW1C470M	ELECTRO 47UF 16WV		
C107			CK45FF1H223Z	CERAMIC 0.022UF Z		
C108			CK45FF1H223Z	CERAMIC 0.022UF Z	TE	
C109,110			C91-0085-05	CERAMIC 0.022UF N	TE	
C111-113			CK45FF1H223Z	CERAMIC 0.022UF Z	TE	
C114			C91-0085-05	CERAMIC 0.022UF N	TE	
C135,136		*	CQ92FM1H752J	MYLAR 7500PF J	YM	
C170			CC45FSL1H101J	CERAMIC 100PF J	TE	
C171			CC45FSL1H470J	CERAMIC 47PF J	TE	
C201,202			CC45FCH1H330J	CERAMIC 33PF J		
C203			CE04DW1A101M	ELECTRO 100UF 10WV		
C204,205			C91-0769-05	CERAMIC 0.01UF K		
C206			CE04CW1V2R2M	ELECTRO 2.2UF 35WV		
C209			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C210,211			CK45FF1H103Z	CERAMIC 0.010UF Z		
J1	1C		E20-0321-05	LOCK TERMINAL BOARD (ANTENNA)	TE	
J1	1C		E20-0476-05	LOCK TERMINAL BOARD (ANTENNA)	KYMX	
J3	2A		E11-0200-05	MINIATURE PHONE JACK(PHONES)		
CF1 ,2			L72-0531-05	CERAMIC FILTER	KYMX	
CF1 ,2			L72-0536-05	CERAMIC FILTER	TE	
CF3			L72-0096-05	CERAMIC FILTER		
L1			L30-0488-05	AM IFT		
L2			L30-0439-25	FM IFT (DISCRIMINATOR)		
L3			L40-1021-14	SMALL FIXED INDUCTOR(1.0mH,K)	TE	
L5			L79-0125-05	LC FILTER	TE	
L6 ,7			L79-0790-05	LC FILTER	TE	
L8			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
L104			L39-0189-05	COMBINATION COIL	KYMX	
L104			L39-0195-05	COMBINATION COIL	TE	
L105			L39-0192-05	COMBINATION COIL	TE	
L106			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
X1			L77-1122-05	CRYSTAL RESONATOR(7.2MHz)		
X201			L77-1176-05	CRYSTAL RESONATOR(4.194304MHz)		
F			N89-3008-46	BINDING HEAD TAPTITE SCREW		
CP201			R90-0855-05	MULTI-COMP 100KX5 J		
CP202		*	R90-0878-05	MULTIPLE RESISTOR 10KX3		
CP203,204			R90-0482-05	MULTI-COMP 100KX4 J 1/6W		

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× New Parts
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Teile ohne Parts No. werden nicht geliefert.

No.5

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
CP205			R90-0824-05	MULTI-COMP 4.7KX6		
CP206			R90-0482-05	MULTI-COMP 100KX4 J 1/6W		
R53			RS14KB3D221J	FL-PROOF RS 220 J 2W		
VR1			R12-3687-05	TRIMMING POT 33K (FM T-LEVEL)		
VR2			R12-1619-05	TRIMMING POT 4.7K(VCO)		
VR3			R12-3685-05	TRIMMING POT 10K (AM T-LEVEL)		
VR4			R12-5652-05	TRIMMING POT 220K(SEPARATION)	TE	
S1 -39	1A		S40-1064-05	PUSH SWITCH		
S101	1C		S31-2132-05	SLIDE SWITCH (CH SP,DE-EM)	YM	
D1 ,2			HSS104	DIODE		
D1 ,2			1SS133	DIODE		
D3			HZS5.1N(B2)	ZENER DIODE		
D3			RD5.1ES(B2)	ZENER DIODE		
D4 ,5			HSS104	DIODE		
D4 ,5			1SS133	DIODE		
D109,110			HSS104	DIODE	TE	
D109,110			1SS133	DIODE	TE	
D111,112			HSS104	DIODE		
D111,112			1SS133	DIODE		
D113-116			HSS104	DIODE	TE	
D113-116			1SS133	DIODE	TE	
D120			HZS3.3N(B2)	ZENER DIODE		
D120			RD3.3ES(B2)	ZENER DIODE		
D212			HSS104	DIODE		
D212			1SS133	DIODE		
D213			HSS104	DIODE	XTE	
D213			1SS133	DIODE	XTE	
D214			HSS104	DIODE	YMXTE	
D214			1SS133	DIODE	YMXTE	
D215			HSS104	DIODE	TE	
D215			1SS133	DIODE	TE	
D216			HSS104	DIODE	YM	
D216			1SS133	DIODE	YM	
D217-227			HSS104	DIODE		
D217-227			1SS133	DIODE		
D231-234			HSS104	DIODE		
D231-234			1SS133	DIODE		
ED201	1A		FIP11AM7R	FLUORESCENT INDICATOR TUBE		
IC1			LA1265	IC(FM/AM TUNER)		
IC2			AN7470	IC(FM MPX)		
IC3			LM7001	IC(PLL FREQUENCY SYNTHESIZER)		
IC201		*	CXP50116-341Q	IC(MICROPROCESSOR)		
IC202			MSM59371	IC(EXPANSION IC)		
Q1			2SC1923(R,O)	TRANSISTOR		
Q2			2SC1845(F,E)	TRANSISTOR		
Q3			2SC1740S(Q,R)	TRANSISTOR		
Q3			2SC3311A(Q,R)	TRANSISTOR		
Q4			2SC1740S(Q,R)	TRANSISTOR	TE	
Q4			2SC3311A(Q,R)	TRANSISTOR	TE	
Q5			2SK163(L,M)	FET	TE	
Q5			2SK364(GR,BL)	FET	TE	
Q102			2SA1309A(Q,R)	TRANSISTOR		
Q102			2SA933S(Q,R)	TRANSISTOR		
Q103			2SA1309A(Q,R)	TRANSISTOR	TE	

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No.6

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
Q103			2SA933S(Q,R)	TRANSISTOR	TE	
Q104			2SA1309A(Q,R)	TRANSISTOR		
Q104			2SA933S(Q,R)	TRANSISTOR		
Q105,106			2SC1740S(Q,R)	TRANSISTOR	TE	
Q105,106			2SC3311A(Q,R)	TRANSISTOR	TE	
Q107,108			2SC1740S(Q,R)	TRANSISTOR	YM	
Q107,108			2SC3311A(Q,R)	TRANSISTOR	YM	
Q109,110			2SD1302(S,T)	TRANSISTOR		
Q111			2SA1309A(Q,R)	TRANSISTOR		
Q111			2SA933S(Q,R)	TRANSISTOR		
Q201,202			2SC1740S(Q,R)	TRANSISTOR		
Q201,202			2SC3311A(Q,R)	TRANSISTOR		
Q203			2SA1309A(Q,R)	TRANSISTOR	YM	
Q203			2SA933S(Q,R)	TRANSISTOR	YM	
A1	1A		W02-1046-05	ELECTRIC CIRCUIT MODULE		
DT1	1C		W02-1041-05	FM FRONT-END ASSY	TE	
DT1	1C		W02-1042-05	FM FRONT-END ASSY	KYMX	
AUDIO UNIT (X09-3380-11 : JAPAN MADE, X09-3450-11 : SINGAPORE MADE)						
C3 ,4			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C5 ,6			CC45FSL1H101J	CERAMIC 100PF J		
C7 ,8			CE04KW1V100M	ELECTRO 10UF 35WV		
C11 ,12			CF92FV1H243J	MF 0.024UF J		
C13 ,14			CF92FV1H104J	MF 0.10UF J		
C15 ,16			CC45FSL1H101J	CERAMIC 100PF J		
C17 ,18			CF92FV1H104J	MF 0.10UF J		
C19 ,20			CC45FSL1H101J	CERAMIC 100PF J		
C21 ,22			CK45FB1H471K	CERAMIC 470PF K		
C23 ,24		*	C90-1851-05	ELECTRO 100UF 16WV		
C25 ,26			CC45FSL1H820J	CERAMIC 82PF J		
C27 ,28			CC45FSL1H220J	CERAMIC 22PF J		
C29 ,30			CC45FSL1H101J	CERAMIC 100PF J		
C31 ,32			CC45FSL1H221J	CERAMIC 220PF J		
C33 ,34			CE04KW1V100M	ELECTRO 10UF 35WV		
C35 ,36			CC45FSL1H820J	CERAMIC 82PF J		
C37 ,38			CE04KW1C220M	ELECTRO 22UF 16WV		
C39			CK45FF1H103Z	CERAMIC 0.010UF Z		
C40			CE04KW1H221M	ELECTRO 220UF 50WV		
C41			CE04KW1H470M	ELECTRO 47UF 50WV		
C42			CK45FF1H103Z	CERAMIC 0.010UF Z		
C43 ,44			CF92FV1H224J	MF 0.22UF J	E	
C43 ,44			CF92FV1H473J	MF 0.047UF J	KYMXT	
C47			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C48			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C49			CE04KW1A101M	ELECTRO 100UF 10WV		
C50 -54			CK45FF1H103Z	CERAMIC 0.010UF Z		
C55 ,56			CK45FF1H103Z	CERAMIC 0.010UF Z		
C57 ,58		*	C90-1947-05	ELECTRO 5600UF 50WV		
C60 ,61			CK45FF1H103Z	CERAMIC 0.010UF Z		
C67 ,68		*	C90-1955-05	ELECTRO 3300UF 42WV		
C69			CE04KW1V101M	ELECTRO 100UF 35WV		
C70			CE04KW1C101M	ELECTRO 100UF 16WV		
C71			CF92FV1H104J	MF 0.10UF J		
C72			CF92FV1H103J	MF 0.010UF J		
C73 ,74			CE04KW1C101M	ELECTRO 100UF 16WV		

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No.7

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C75			CE04KW1E101M	ELECTRO 100UF 25WV		
C76			CE04KW1V470M	ELECTRO 47UF 35WV		
C77			CE04KW1E471M	ELECTRO 470UF 25WV		
C79			CE04KW1V100M	ELECTRO 10UF 35WV		
C80			CE04KW1V470M	ELECTRO 47UF 35WV		
C81			CE04KW1V100M	ELECTRO 10UF 35WV		
C82			CE04KW0J222M	ELECTRO 2200UF 6.3WV		
C83			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C84			CF92FV1H103J	MF 0.010UF J		
C86			CE04KW1V100M	ELECTRO 10UF 35WV		
⚠ C87			C91-1421-05	FILM 0.01UF 250AC		
C88			CE04KW1C470M	ELECTRO 47UF 16WV		
C89			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C90 ,91			CK45FF1H103Z	CERAMIC 0.010UF Z		
C95			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C96			CE04KW1C470M	ELECTRO 47UF 16WV		
C97			CC45FSL1H101J	CERAMIC 100PF J		
C98			CE04KW1A101M	ELECTRO 100UF 10WV		
C100,101			CE04KW1V100M	ELECTRO 10UF 35WV		
C102			CF92FV1H104J	MF 0.10UF J		
C103,104			CF92FV1H154J	MF 0.15UF J		
C105			CK45FF1H472Z	CERAMIC 4700PF Z		
C106			CC45FSL1H221J	CERAMIC 220PF J		
C107			CF92FV1H473J	MF 0.047UF J		
C108			CC45FSL1H221J	CERAMIC 220PF J		
C109			CE04JW1C100M	ELECTRO 10UF 16WV		
C110			CK45FB1H102K	CERAMIC 1000PF K		
C111			CE04JW1C100M	ELECTRO 10UF 16WV		
C112			CE04JW1V100M	ELECTRO 10UF 35WV		
C113			CE04JW1H0R1M	ELECTRO 0.1UF 50WV		
C114			CE04JW1H4R7M	ELECTRO 4.7UF 50WV		
C115			CE04JW1C100M	ELECTRO 10UF 16WV		
C116			CE04JW1H010M	ELECTRO 1.0UF 50WV		
C117			CK45FF1H472Z	CERAMIC 4700PF Z		
C118			CK45FF1H103Z	CERAMIC 0.010UF Z		
C120			CK45FF1H103Z	CERAMIC 0.010UF Z		
C123			CK45FF1H103Z	CERAMIC 0.010UF Z	E	
C124,125			CE04KW1C470M	ELECTRO 47UF 16WV		
C126			CK45FF1H103Z	CERAMIC 0.010UF Z		
C127			CK45FF1H103Z	CERAMIC 0.010UF Z	E	
C128,129			CC45FSL1H221J	CERAMIC 220PF J		
C130			CK45FF1H103Z	CERAMIC 0.010UF Z	E	
C133			CK45FF1H103Z	CERAMIC 0.010UF Z		
C133			CK45FF1H103Z	CERAMIC 0.010UF Z		
C201,202			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C203,204			CC45FSL1H221J	CERAMIC 220PF J	KYMXT	
C203,204			CK45FB1H821K	CERAMIC 820PF K	E	
C205,206			CC45FSL1H221J	CERAMIC 220PF J	E	
C207,208			CK45FF1H103Z	CERAMIC 0.010UF Z		
C209,210			CE04KW1V101M	ELECTRO 100UF 35WV		
C211,212			CE04KW1V100M	ELECTRO 10UF 35WV		
C213,214			CF92FV1H104J	MF 0.10UF J	E	
C213,214			CF92FV1H473J	MF 0.047UF J	KYMXT	
C215,216			CF92FV1H224J	MF 0.22UF J	E	
C217,218			CE04KW1V100M	ELECTRO 10UF 35WV		

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No.8

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
CN6			E10-0614-05	FLAT CABLE CONNECTOR		
J1	1C		E08-1508-05	RECTANGULAR RECEPTACLE(RED)		
J2	1C	*	E58-0001-05	RECTANGULAR RECEPTACLE(GREEN)		
J3	1C	*	E70-0008-05	LOCK TERMINAL BOARD(PRESENCE)		
J4	1C	*	E63-0018-05	PHONO JACK(SURROUND,CENTER SP)		
J5	1C	*	E63-0017-05	PHONO JACK(SUPER WOOFER)		
J6 ,7	1C		E23-0149-05	TERMINAL		
J8	2C	*	E11-0220-05	MINIATURE PHONE JACK(MIC)		
⚠ F1			F05-1623-05	FUSE (250V T1.6A)	YM	
⚠ F1			F05-4028-05	FUSE (125V 4A)	K	
⚠ F2			F05-1623-05	FUSE (250V T1.6A)	YMXTE	
⚠ F3 ,4			F53-0010-05	FUSE (125V 4A)	K	
⚠ F3 ,4		*	F53-0044-05	FUSE (250V T4A)	YMXTE	
⚠ F5 ,6			F53-0006-05	FUSE (125V 2A)	K	
⚠ F5 ,6		*	F53-0042-05	FUSE (250V T2A)	YMXTE	
⚠ F7			F53-0010-05	FUSE (125V 4A)	K	
⚠ F7		*	F53-0042-05	FUSE (125V T4A)	YMXTE	
CN18-21			J13-0075-05	FUSE CLIP	YM	
CN18,19			J13-0075-05	FUSE CLIP	XTE	
CN20,21			J13-0075-05	FUSE CLIP	K	
L1 -4			L39-0085-05	PHASE-COMPENSATION COIL		
⚠ T1	1B	*	L07-0332-05	POWER TRANSFORMER	K	
⚠ T1	1B	*	L07-0333-05	POWER TRANSFORMER	XT	
⚠ T1	1B	*	L07-0334-05	POWER TRANSFORMER	E	
⚠ T1	1B	*	L07-0335-05	POWER TRANSFORMER	YM	
E			N89-3008-45	BINDING HEAD TAPTITE SCREW		
G			N09-0333-05	TAPPING SCREW (3X12)		
H			N09-1236-05	TAPPING SCREW (3X16)		
J			N35-3008-46	BINDING HEAD MACHIN SCREW		
CP1 ,2			R90-0187-05	MULTI-COMP 0.22X2 K 5W		
R25 ,26			RN14BK2C1960F	RN 196.0 F 1/6W		
R27 -30			RN14BK2C1472F	RN 14.7K F 1/6W		
R31 ,32			RD14NB2E151J	RD 150 J 1/4W		
R33 ,34			RD14NB2E222J	RD 2.2K J 1/4W		
R35 ,36		*	RD14NB2E181J	RD 180 J 1/4W		
R37 ,38			RD14NB2E151J	RD 150 J 1/4W		
R47 -50			RD14NB2E4R7J	RD 4.7 J 1/4W		
R51			RD14NB2E221J	RD 220 J 1/4W		
R52			RD14NB2E101J	RD 100 J 1/4W		
R59 ,60			RS14KB3D100J	FL-PROOF RS 10 J 2W	KYMXT	
R59 ,60			RS14KB3D4R7J	FL-PROOF RS 4.7 J 2W	E	
R63 ,64			RS14KB3A561J	FL-PROOF RS 560 J 1W		
R88			R92-0513-05	FUSE RESIST 10 G 1/4W		
R91			RS14KB3D121J	FL-PROOF RS 120 J 2W		
R92			RS14KB3A470J	FL-PROOF RS 47 J 1W		
⚠ R134			R92-0173-05	RC 2.2M M 1/2W	K	
R147,148			RD14GB2E221J	FL-PROOF RD 220 J 1/4W		
R150,151			RD14NB2E471J	RD 470 J 1/4W		
R209,210			R92-0166-05	METAL-PLATE 0.22 K 2W		
R217,218			RD14NB2E101J	RD 100 J 1/4W		
R221,222			RS14KB3D100J	FL-PROOF RS 10 J 2W		
VR1	2C	*	R29-9026-05	POTENTIOMETER(VOLUME CONTROL)		
VR2	2C	*	R11-9021-05	POTENTIOMETER(N.B.CIRCUIT)		
VR3	2C	*	R10-5043-05	POTENTIOMETER(BALANCE)		

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A-722L: T, E type

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PARTS LIST A-722/722L

× New Parts
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No.9

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
VR4	2C	*	R10-5044-05	POTENTIOMETER(MIC MIXING)		
K1 -3			S76-0005-05	MAGNETIC RELAY		
⚠ K4			S76-0002-05	MAGNETIC RELAY		
⚠ S1	1C		S31-3010-05	SLIDE SWITCH(VOLTAGE SELECTOR)	YM	
D1 -4			HSS104A	DIODE		
D1 -4			1SS131	DIODE		
D5			HZS5.1N(B2)	ZENER DIODE		
D5			RD5.1ES(B2)	ZENER DIODE		
D6			HSS104A	DIODE		
D6			1SS131	DIODE		
D7 ,8			HSS104	DIODE		
D7 ,8			1SS133	DIODE		
D9 -11			HSS104A	DIODE		
D9 -11			1SS131	DIODE		
⚠ D12			D5SBA20F03	DIODE		
⚠ D12			RBV-602LFA	DIODE		
⚠ D15			D3SBA20F03	DIODE		
⚠ D15			RBV-402LFA	DIODE		
D16			HZS16N(B2)	ZENER DIODE		
D16			RD16ES(B2)	ZENER DIODE		
D17 -19			HSS104A	DIODE		
D17 -19			1SS131	DIODE		
D20 ,21			S5688B	DIODE		
D20 ,21			1SR139-100	DIODE		
D22			HZS6.2N(B2)	ZENER DIODE		
D22			RD6.2ES(B2)	ZENER DIODE		
D23			HZS11N(B2)	ZENER DIODE		
D23			RD11ES(B2)	ZENER DIODE		
D24			HZS16N(B2)	ZENER DIODE		
D24			RD16ES(B2)	ZENER DIODE		
D25			HSS104	DIODE		
D25			1SS133	DIODE		
D26			HZS6.8N(B2)	ZENER DIODE		
D26			RD6.8ES(B2)	ZENER DIODE		
D28			HZS4.7N(B)	ZENER DIODE		
D28			RD4.7ES(B)	ZENER DIODE		
D30 -38			HSS104	DIODE		
D30 -38			1SS133	DIODE		
D39 ,40			S5688B	DIODE		
D39 ,40			1SR139-100	DIODE		
D41 -50			HSS104	DIODE		
D41 -50			1SS133	DIODE		
D51 ,52			HSS104A	DIODE		
D51 ,52			1SS131	DIODE		
D53			HZS4.7N(B)	ZENER DIODE		
D53			RD4.7ES(B)	ZENER DIODE		
D55 ,56			HZS5.1N(B2)	ZENER DIODE		
D55 ,56			RD5.1ES(B2)	ZENER DIODE		
IC1			NJM4565D-D	IC(OP AMP X2)		
IC1			RC4565D-D	IC(OP AMP X2)		
IC2			TA8409S	IC(MOTOR CONTROL)		
IC3		*	TA7815HF	IC(VOLTAGE REGULATOR/ +15V)		
IC3			UPC7815HF	IC(VOLTAGE REGULATOR/ +15V)		
IC4			PST529C	IC(SYSTEM RESET)		

E: Scandinavia & Europe K: USA P: Canada
Y: PX (Far East, Hawaii) T: England M: Other Areas
Y: AAFES (Europe) X: Australia

A-722: K, Y, M, X type
A-722L: T, E type

⚠ indicates safety critical components.

× New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Telle ohne **Parts No.** werden nicht geliefert.

No.10

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
IC5			TC9215P	IC(ANALOG SWITCH X 6)		
IC6			NJM4565D-D	IC(OP AMP X2)		
IC6			RC4565D-D	IC(OP AMP X2)		
⚠ IC7		*	STK4130/2	IC(SURROUND AMP.)	KYMXT	
⚠ IC7		*	STK4130/5	IC(SURROUND AMP.)	E	
IC8			NJM4565D-D	IC(OP AMP X2)		
IC8			RC4565D-D	IC(OP AMP X2)		
Q1 -6			2SA992(F,E)	TRANSISTOR		
Q7 -10			2SC1845(F,E)	TRANSISTOR		
Q11 ,12			2SC4137(V,W)	TRANSISTOR		
⚠ Q13 ,14			2SD2340	TRANSISTOR		
⚠ Q15 ,16			2SB1531	TRANSISTOR		
Q17 ,18			2SC1845(F,E)	TRANSISTOR		
Q19			2SA1123(R,S)	TRANSISTOR		
Q20 ,21			2SC1845(F,E)	TRANSISTOR		
Q22 -24			2SC1740S(Q,R)	TRANSISTOR		
Q22 -24		*	2SC3311A(Q,P)	TRANSISTOR		
Q27			2SA954(L,K)	TRANSISTOR		
Q28			2SC1740S(Q,R)	TRANSISTOR		
Q28		*	2SC3311A(Q,P)	TRANSISTOR		
Q29			2SD1266(Q,P)	TRANSISTOR		
Q30			2SB764	TRANSISTOR		
Q31			2SA1309A(Q,R)	TRANSISTOR		
Q31			2SA933S(Q,R)	TRANSISTOR		
Q32 ,33			2SC2878(B)	TRANSISTOR		
Q35			2SC2878(B)	TRANSISTOR		
Q36			2SA1309A(Q,R)	TRANSISTOR		
Q36			2SA933S(Q,R)	TRANSISTOR		
Q37 -40			2SC1740S(Q,R)	TRANSISTOR		
Q37 -40		*	2SC3311A(Q,P)	TRANSISTOR		
Q41 ,42			DTC124ES	DIGITAL TRANSISTOR		
Q41 ,42			UN4212	DIGITAL TRANSISTOR		
Q43 ,44			2SC2878(B)	TRANSISTOR		
Q51 ,52			2SC1845(F,E)	TRANSISTOR		

E: Scandinavia & Europe K: USA P: Canada
Y: PX (Far East, Hawaii) T: England M: Other Areas
Y: AAFES (Europe) X: Australia

A-722: K, Y, M, X type
A-722L: T, E type

⚠ indicates safety critical components.

A-722/722L

SPECIFICATIONS

PPHU „FOXEL"
SŁAWOMIR PAŁUPSKI
59-225 CHOJNÓW
ul Kilińskiego 23
tel. (076) 818-18-39, fax (076) 818-78-82
NIP 694-101-77-86 Id 390213498

Receiver unit (A-722/722L)

Amplifier section

Rated power output

35 watts per channel minimum RMS, both channels driven, at 6 Ω from 40 Hz to 20,000 Hz with no more than 0.09% total harmonic distortion (FTC).

(IEC/NF) From 63 to 12,500 Hz, 0.7% T.H.D. at 6 Ω ..... 35 W + 35 W
(DIN) 1 kHz, at 6 Ω ..... 40 W + 40 W
(IHF'66) From 40 to 20 kHz, 0.09% T.H.D. at 6 Ω ..... 35 W + 35 W
Total harmonic distortion ..... 0.09% at rated power
0.06% at 1 kHz, 1/2 rated power
Frequency response
CD, TUNER, AUX, TAPE ..... 40 Hz ~ 70 kHz, 0 dB, –3 dB
Signal to noise ratio (IHFA'66)
DAT INPUT ..... 100 dB
Input sensitivity/Impedance
DAT INPUT ..... 150 mV/47 kΩ
N.B. circuit (–30 dB VOLUME level) ..... +16 dB (at 60 Hz)
Output level/Impedance
SUPER WOOFER OUT ..... 1.5 V/3.6 kΩ
Power consumption ..... 180 W (IEC)
1.5 A (for U.S.A. and Canada)
Dimensions ..... W: 270 mm (10-5/8")
H: 120 mm (4-3/4")
D: 300 mm (11-4/5")
Weight (Net) ..... 6.5 kg (14.32 lb)

A-722L FM tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Usable sensitivity (DIN at 75 Ω)
MONO ..... 0.7 µV
STEREO ..... 22 µV
Total harmonic distortion (DIN at 1 kHz)
MONO ..... 0.6% (65.2 dBf input)
STEREO ..... 0.8% (65.2 dBf input)
Signal to noise ratio (DIN weighted at 1 kHz)
MONO ..... 70 dB (65.2 dBf input)
STEREO ..... 64 dB (65.2 dBf input)
Stereo separation (DIN)
1 kHz ..... 45 dB
Frequency response ..... 30 Hz ~ 15 kHz, +0.5 dB, –3.0 dB

MW tuner section

Tuning frequency range ..... 531 kHz ~ 1,602 kHz
Usable sensitivity ..... 20 µV/(500 µV/m)
Signal to noise ratio
(at 30% mod, 1 mV input) ..... 48 dB

LW tuner section

Tuning frequency range ..... 153 kHz ~ 281 kHz
Usable sensitivity ..... 22 µV
Signal to noise ratio
(at 30% mod. 1 mV input) ..... 45 dB

A-722 FM tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz
Usable sensitivity (MONO at 75 Ω) ..... 1.2 µV/12.8 dBf
Total harmonic distortion (at 1 kHz)
MONO ..... 0.5% (65 dBf input)
STEREO ..... 0.6% (65 dBf input)
Signal to noise ratio (at 1 kHz)
MONO ..... 80 dB (65 dBf input)
STEREO ..... 74 dB (65 dBf input)
Stereo separation 1 kHz ..... 38 dB
Frequency response ..... 30 Hz ~ 15 kHz, +0.5 dB, –3.0 dB

AM tuner section

Tuning frequency range
9 kHz step ..... 531 kHz ~ 1,602 kHz
10 kHz step ..... 530 kHz ~ 1,610 kHz
Usable sensitivity ..... 20 µV/500 µV/m)
Signal to noise ratio
(at 30% mod. 1 mV input) ..... 48 dB

Note:

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be without notice.

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui doncerne le dévelopment. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige, Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

KENWOOD CORPORATION
Shionogi Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan
KENWOOD U.S.A. CORPORATION
2201 East Dominguez Street, Long Beach, CA 90810;
550 Clark Drive, Mount Olive, NJ 07828, U.S.A.
KENWOOD ELECTRONICS CANADA INC.
P.O. BOX 1075, 959 Gana Court, Mississauga, Ontario, Canada L4T 4C2
TRIO-KENWOOD U.K. LTD.
KENWOOD HOUSE, Dwight Road, Watford, Herts., WD1 8EB United Kingdom
KENWOOD ELECTRONICS BENELUX N.V.
Mechelsesteenweg 418 B-1930 Zaventem, Belgium
KENWOOD ELECTRONICS DEUTSCHLAND GMBH
Rembrücker-Str. 15, 6056 Heusenstamm, Germany
TRIO-KENWOOD FRANCE S.A.
13 Boulevard Ney, 75018 Paris, France
KENWOOD LINEAR S.p.A.
20125, MILANO-VIA ARBE, 50, ITALY
KENWOOD ELECTRONICS AUSTRALIA PTY. LTD. (INCORPORATED IN N.S.W.)
P.O. BOX 504, 8 FIGTREE DRIVE, AUSTRALIA CENTRE,
HOMEBUSH, N.S.W. 2140, AUSTRALIA
KENWOOD & LEE ELECTRONICS, LTD.
Wang Kee Building, 4th Floor, 34-37, Connaught Road, Central, Hong Kong